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LUCRETIUS.

LUCRETIUS

ON

THE NATURE OF THINGS

LITERALLY TRANSLATED BY THE

REV. JOHN SELBY WATSON, M.A.

WITH THE POETICAL VERSION OF

JOHN MASON GOOD.

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REMARKS

ON THE

LIFE AND POEM OF LUCRETIUS.

Of the life of Lucretius but little information has reached us.

Ad nos vix tenuis famæ perlabitur aura.

That he was a Roman by birth, is inferred from the passages in his poem in which he speaks of the Roman world as his country,[1] and of the Roman language as his native tongue.[2]

As to the time of his birth, it is stated by Eusebius in his *Chronicon*, that he was born in the second year of the hundred and seventy-first Olympiad, or ninety-five years before Christ. At this period, Ennius had been dead about seventy years; Cicero was in his twelfth year; twenty-five years were to elapse before the birth of Virgil, and four before that of Julius Cæsar. His style, indeed, would make him seem older, but its antiquated character may be partly affected, in imitation, perhaps, of Ennius, for whom he expresses great veneration.[3]

Concerning his family nothing is known. The name of Lucretius, from the time of Lucretia downwards, occurs frequently in the history of Rome, with the surnames Tricipitinus, Cinna, Ofella, and others, attached to it; but with whom the poet was connected, or from whom descended, it is impossible to discover. There was a Lucretius Vespillo contemporary with him, a senator, mentioned by Cicero[4] and Cæsar,[5] of whom Lambinus conjectures that he may have been the brother; suggesting that the one brother, by engaging in public life, might have attained senatorial dignity, while the other, devoting himself to literature and retirement, might have

[1] Nam neque nos agere hoc patriai tempore iniquo, etc. i. 42.
[2] I. 31; iii. 259. [3] I. 118.
[4] Cic. Brut. c. 48. [5] B. c. i. 18; iv 7.

continued in the equestrian or even plebeian rank, in which he was born. But all this is mere empty conjecture.

Equally groundless is the supposition, started also by Lambinus, that in his youth he went to Athens to study, and there, under the instruction of Zeno, who was then at the head of the Epicureans, became imbued with the doctrines of Epicurus. That he attached himself to the tenets of Epicurus is certain, but when or where he studied them is not now to be ascertained.

Dunlop, however, asserts that "Lucretius *was sent*, with other young Romans of rank, to study at Athens."[1] Thus it is that errors creep into biography and history; the learned conjecture, and the less learned affirm. Lambinus suggests that Lucretius might have gone to Athens, Dunlop states that he did go; Lambinus says that it is probable, Dunlop says it is fact.

He wrote his poem, or part of it, as appears from a passage near the beginning of the first book,[2] at a time when the Roman commonwealth was in a disturbed state; but whether the disorders to which he alludes were, as is generally supposed, those excited by Catiline, or, as Forbiger suggests, those which were raised by Clodius eight years afterwards, there is no means of deciding.

His poem and his life, if we may trust Eusebius, were ended in the manner following. "Having been driven to madness by an amatory potion, and having composed several books in the intervals of his insanity, which Cicero afterwards corrected, he died by his own hand in the forty-fourth year of his age." By whom the potion was administered, is conjectured only from a passage in St. Jerome, who says that a certain Lucilia killed her husband or her lover, by giving him a philtre which was intended to secure his love, but of which the effect was to render him insane.[3] This Lucilia is supposed to have been the wife or mistress of Lucretius, but by whom the supposition was first made, I am not able to discover.

He is said by Donatus, or whoever wrote the old Life of Virgil, to have died on the day on which Virgil assumed the *toga virilis*.

[1] Hist. of Rom. Lit. vol. i. p. 417. [2] I. 42.
[3] Epist. Dissuas. ad Rufinum, c. 22, tom. xi. p. 245 ed. Veron.

That Cicero corrected what he wrote, there is, except from the passage in Eusebius, no indication.

From a passage in Varro,[1] it has been concluded that he wrote many more books than have reached us; for "Lucretius," says he, "suorum unius et viginti librorum initium fecit hoc: Ætheris et terræ genitabile quærere tempus." But Lambinus has very plausibly conjectured that for *Lucretius* should be substituted *Lucilius*, or the name of some other writer unknown to us. This is the more probable, observes Eichstadt, as Varro was older than Lucretius, and was not accustomed to draw examples and testimonies from younger writers.

From the six books, as they now stand, there is no inference to be drawn that more were written. That something more was intended is perhaps true; for when we consider how the sixth book breaks off, we must either suppose that he designed to write a conclusion to it, or that he meant another book to follow. He signifies, however,[2] that he was drawing to the conclusion of his undertaking; and, indeed, the doctrines of Epicurus are so fully set forth in the six books, that little more could have been added respecting them.

It is true that there are two or three allusions among the grammarians to passages and verses which are not now found in the six books; allusions which have led to the belief that there were more books, but which, with other considerations, led Spalding, the editor of Quintilian,[3] to the suspicion that there were two editions given by the author himself, and that, though the second was generally followed, the first was not quite forgotten. Thus the 937th verse of the first book, which is now read,

> "Contingunt mellis dulci flavoque liquore,"

is cited by Quintilian,

> "Aspirant mellis dulci flavoque liquore."

And Servius, on those lines in the Georgics,[4]

> "Non ego cuncta meis amplecti versibus opto;
> Non mihi si linguæ centum sint oraque centum,
> Ferrea vox,"

[1] De L. L. v. p. 27, ed. Spengel.
[2] vi. 45, 91.
[3] Inst. Or. iii. 1, 4.
[4] II. 42.

says, "The verses are Lucretius's; but he has *ænea vox*, not *ferrea;*" verses which are not now to be found in Lucretius. This notion of two editions Eichstadt has noticed at some length in his dissertation, *De Lucretii Vitâ et Carmine;* and Forbiger has written a long essay to show that Lucretius's verses have been much altered. "Fateor enim," says Forbiger,[1] "ex quo primùm Lucretii carmen, studiosiùs perlegerim operamque meam ei navaverim, plures mihi oblatas esse causas suspicandi, nobis in his sex de rerum natura libris non unius Lucretii, sed duorum scriptorum longè diversorum manum agnoscendam, ideoque hunc etiam auctorem iis annumerandum esse, quorum scripta à serioribus multis in locis mutata, aucta vel contracta, emendata vel corrupta, denique longè alia ab eâ, quam auctor ipsis dederit, formâ induta, ad nostra tempora pervenerint." "I confess, that since I first read the poem of Lucretius with attention, and bestowed serious labour upon it, many reasons occurred to me for suspecting that, in these six books concerning the nature of things, we have to recognise, not the hand of Lucretius alone, but those of two writers of far different characters; and that this author is therefore to be numbered with those, whose works have come down to us altered in many places by later writers; having been augmented or diminished in bulk, amended or corrupted, and invested with a different form from that which the author himself gave them." But perhaps, in the case of Lucretius, the variations which we find in the verses which are cited from him, are to be attributed, not to any regular revision or emendation of his writings, but to the casual mistakes of transcribers, and the lapse of memory in grammarians. Perhaps also passages, containing verses cited by Servius and others, have been lost. Lachmann, the last editor, finds, or imagines that he finds, deficiencies in several pages.

The Memmius to whom the poem is addressed, was, as Lambinus and others think, Caius Memmius Gemellus, a Roman knight, who is described by Cicero[2] as "a learned man, well-read in Greek, but disdainful of Latin literature; a clever orator, and of an agreeable style; but shrinking from the labour, not only of speaking, but even of thinking; and

[1] De Lucretii Carmine, p. 6. [2] Brut. 70.

doing injustice to his ability by his want of industry." He became prætor, and after his prætorship had the province of Bithynia, to which he was accompanied by Catullus the poet. Being supported by Cæsar, he stood for the consulship, but was unsuccessful, and, after being accused and condemned of bribery, went into exile at Patræ, where he died. Cicero defended him on his trial, and addressed to him some letters which may be found in the thirteenth book of his Epistles to his friends.[1]

The general voice of criticism has awarded to Lucretius high praise as a poet. The earliest notice which we find of his works, is that of Cicero in a letter to his brother Quintus,[2] in which he says, as the passage stands in Ernesti, *Lucretii poemata, ut scribis, ita sunt; non multis luminibus ingenii, multæ tamen artis.* "The poetry of Lucretius is such as you say; having not much splendour of genius, but a great deal of art." Wakefield would omit the *non*, but is opposed by Eichstadt and Schutz, and by general opinion.[3] Cicero, however, if we read his words rightly, seems hardly to do justice to the poet,[4] or to hit the general character of his work. To us, of the present day, he appears to be chiefly distinguished by a rough vigour, and to have been anxious rather to express his thoughts strongly, than to clothe them in elegance or niceties of language. Not that he disdained poetical beauties, for Virgil and others have found in him many worthy of adoption; but vigour and animation seemed to have been his chief aim. Statius did him more justice, when he spoke of the *docti furor arduus Lucretî*,[5] "the lofty rage of the learned Lucretius."[6] Ovid thoroughly understood his merit, and predicted that his poem was destined to be immortal:

> Carmina sublimis tunc sunt peritura Lucretî,
> Exitio terras cùm dabit una dies.[7]

[1] See Lambinus in Prolegom. [2] Ad Quint. Frat. ii. 11.

[3] Tanaquil Faber proposed to read, omitting the *non*, "lita sunt multis luminibus," &c., which Ernesti, as Eichstadt remarks, justly condemns. Who indeed could endure the expression *luminibus linere?*

[4] See Warton's Essay on Pope, vol. ii. p. 328.

[5] Stat. Sylv. ii. 7, 76.

[6] This expression Gray seems to have had in his thoughts, when he wrote,

> Chill penury repress'd their *noble rage.*

[7] Amor. i. 15, 23.

Cornelius Nepos[1] ranks him in elegance with Catullus; for speaking of a certain Julius Calidus, who was rescued from proscription by Pomponius Atticus, he calls him "the most elegant poet since the death of Catullus and Lucretius." Quintilian[2] gives him similar praise, saying that he is *elegans in suâ materiâ*, elegant in his peculiar department, though he thinks him "difficult" for the student. Aulus Gellius[3] calls him a poet "excelling *ingenio et facundiâ*, in genius and force of language;" Serenus Sammonicus[4] styles him "the great Lucretius;" and Velleius Paterculus,[5] Vitruvius,[6] Seneca,[7] Macrobius,[8] and Pliny the younger,[9] notice him as ranked among the most eminent poets, though without bestowing on him any specific commendation. He is recognised in a similar way by Propertius[10] and Tacitus.[11]

There was therefore little cause for Dunlop to complain of "the slight mention that is made of Lucretius by succeeding Latin authors," and of "the coldness with which he is spoken of by all Roman critics and poets, with the exception of Ovid." Horace, indeed, who makes abundant mention of Ennius and Lucilius, has, it must be acknowledged, not named Lucretius. Dunlop, to account for this silence of Horace, and the supposed intended silence of others, suggests that "the spirit of free-thinking which pervaded his writings, may have rendered it unsuitable or unsafe to extol his poetical talents. There was a time," he adds, "when, in this country, it was thought scarcely decorous or becoming to express high admiration of the genius of Rousseau and Voltaire." With reference to Horace, and his times, there may have been some ground for this supposition. Cicero, in his *De Amicitiâ*,[12] introduces Lælius saying that "he does not agree with those who have lately begun to assert that souls perish together with their bodies, and that death makes an end of all." "I rather submit myself," he continues, "to the authority of the ancients, or of our own forefathers, who appointed religious rites for the dead; rites which they would not have instituted, had they thought that the dead could not be affected by them, * * * or to the authority of him who was pronounced by the oracle

[1] Vit. Att. xii. 4. [2] Instit. Or. x. 1. [3] Noct. Att. i. 21.
[4] De Medic. ver. 614. [5] Hist. Rom. ii. 36. [6] Lib. ix. 3.
[7] De Tranq. An. sect. 2; Ep. xcv. cx. [8] Sat. vi. 2.
[9] Ep. iv. 18. [10] Eleg. ii. 25, 29. [11] Dial. de Or. 23. [12] Cap. 5.

of Apollo the wisest of men; and who did not on this, as on most subjects, assert sometimes one thing and sometimes another, but maintained invariably the same opinion, that the souls of men are divine, and that, when they are released from the body, a return to heaven is open to them, and first of all to the best and most worthy. But," he concludes, as if unwilling to side too closely with either party, "should the opinion of those be true, who think that the soul and the body perish together, and that all sense is terminated by their separation, death will then be attended with neither good nor evil."

The moderns have certainly not been less willing to praise Lucretius than the ancients. Barthius[1] and Turnebus[2] commend the attractive simplicity of his antique Latinity; Crinitus and Casaubon[3] speak of his style in a similar manner; and Julius Scaliger[4] calls him "a divine man, and incomparable poet." The eulogies bestowed upon him by Lambinus, Faber, and his other commentators, I omit, as they might be regarded as the offspring of partiality.

Our own countrymen have not been behind others in offering their tribute of admiration, as exhibited in editions, translations, remarks, and quotations. Dr. Warton, in his Essay on Pope,[5] calls the Nature of Things "the noblest descriptive poem extant," and has most happily illustrated the poet's vigour of conception and execution: "The Persians," says he, "distinguish the different degrees of the strength of fancy in different poets, by calling them painters or sculptors. Lucretius, from the force of his images, should be ranked among the latter. He is, in truth, a sculptor-poet. His images have a bold relief." "If Lucretius had not been spoiled by the Epicurean system," says Lord Byron,[6] "we should have had a far superior poem to any now in existence. As mere poetry, it is the first of Latin poems." But the most discriminating and ample praise, that has been given him by any English author, is that of Dryden:[7]

"If I am not mistaken," says he, "the distinguishing cha-

[1] Advers. xxiii. 1. [2] Advers. xviii. 6.
[3] Not. in Johan. c. 5, cited in the Life prefixed to Creech's version.
[4] In Aristot. Hist. Anim. x. 53.
[5] Vol. i. p. 50, and vol. ii. p. 105, note. [6] Letter on Bowles.
[7] Preface to his second Miscellany of Translations.

racter of Lucretius, I mean of his soul and genius, is a certain kind of noble pride, and positive assertion of his own opinions. He is every where confident of his own reason, and assuming an absolute command, not only over his vulgar readers, but even his patron Memmius; for he is always bidding him attend, as if he had the rod over him, and using a magisterial authority, while he instructs him. * * * He seems to disdain all manner of replies, and is so confident of his cause, that he is beforehand with his antagonists; urging for them whatever he imagined they could say, and leaving them, as he supposes, without an objection for the future. All this too with so much scorn and indignation, as if he were assured of the triumph before he entered into the lists.

"From this sublime and daring genius of his, it must of necessity come to pass, that his thoughts must be masculine, full of argumentation, and that sufficiently warm. From the same fiery temper proceeds the loftiness of his expressions, and the perpetual torrent of his verse, when the barrenness of his subject does not too much restrain the quickness of his fancy. For there is no doubt to be made, but that he could have been every where as poetical as he is in his descriptions, and in the moral part of his philosophy, if he had not aimed more to instruct in his system of nature, than to delight."

With regard to the subject of his poem, Lucretius is to be contemplated as a *natural* and *moral philosopher*.

The physical part of his philosophy, and most, indeed, of the moral part, he took from Epicurus, who, as Cicero[1] observes, had previously adopted his physics from Democritus. Of this, the great principle is, that *nothing can proceed from nothing*,[2] and that, consequently, this world, in which we live, and every other object in the universe, was formed from matter that previously existed. How this matter came to exist, we need not inquire; we are to suppose that it existed always. In its original state it was an infinitude of detached atoms, moving or falling through unlimited space; for that space is unlimited is by Lucretius elaborately proved.[3]

These atoms are infrangible and indestructible; for matter is not infinitely divisible; there must be a point at which di-

[1] De Fin. i. 6. [2] I. 156, 544. [3] I. 967.

vision ends. They are hard and solid, or they would be unable to endure agitation and attrition throughout an infinity of ages.[1] They are of different shapes, suited for the formation of various substances by combination.[2] The number of their forms, however, is limited; but the number of each form is infinite.[3]

The atoms were moving; but whence had they the beginning of motion? From their own gravity; for all bodies move downwards by their own weight.[4] This is the commencement of absurdity in the system; for, if space be infinite, one direction in it cannot be called *downwards* more than another; as Lucretius himself indeed acknowledges, observing that *nil est funditus imum;*[5] nor can any reason be assigned why an atom should move from one part of infinite space to another.

This commencement of motion, however, being assumed, it is next to be shown how atoms combined. Had they all moved, as might have been supposed, in straight lines, as they fell or proceeded through space, there could have been no coalition among them, unless the heavier had overtaken the lighter. But Lucretius, or Epicurus, had sufficient conception of the motion of bodies in empty space, to understand that light bodies must move through it as speedily as heavy ones, and that, consequently, one atom could not overtake another.[6] It was necessary, therefore, to make some of them deviate from the straight or perpendicular line, and it is accordingly assumed that some do deviate from it. "This supposition," says Cicero,[7] "is mere puerility; for he introduces the deviation arbitrarily; he makes some atoms decline from the straight course without cause; and to say that any thing takes place without a cause is to a natural philosopher the most disgraceful of all things. To assert, too, that some decline, and some go straight onwards, is, as it were, to give properties and duties to atoms despotically, determining which is to go in a right line, and which obliquely."

But when, from partial deviations, some had come in contact with others, they began to form combinations. They strove, as it were, for a long time ineffectually,[8] but at length

[1] I 484—635. [2] II. 94—107. [3] II. 426—580.
[4] II. 79—87. [5] I. 992. [6] II. 225, *seq.* [7] De Fin. i. 6.
I. 1023, *seq.*; V. 188—195.

the larger and heavier atoms coalesced into the denser substances, as earth and water; the smaller and lighter, into more subtle matters, as air and fire. From combinations of such substances arose plants and animals; as trees and worms still spring from the earth when it is moistened and warmed. Of the rise of animals in general, and of man especially, the reader will find an ample account, according to the notions of Epicurus, in the fifth book.[1]

Nature does not *abhor a vacuum.* On the contrary, it is necessary that there should be, throughout the whole of matter, certain portions of empty space, or the movement of particles would be utterly impeded. Water, for instance, could not be a liquid, unless there were vacuities among its atoms to allow them to yield to pressure.[2]

Man consists of a body and a soul. The body is constituted of coarser, and the soul of finer matter. Both are produced together, and grow up and decay together; at death, the connexion between them is dissolved; the soul takes its departure, to be decomposed, and mingled with other matter; and the body begins to decay, that it may undergo a similar fate.

The mind is intimately connected with the soul; so intimately that they must be said to form one substance. Both are composed of heat, vapour, air, and a certain *fourth substance*, which has no name, but which is the most important of the four, as being the origin of motion in the whole man. That both are wholly corporeal is indisputable, from their power to act on the body:

Tangere enim et tangi, nisi corpus, nulla potest res.[3]

Ideas of objects in the mind are produced by the mysterious action of images of things on the soul and intellect; images of a light vapoury substance, which are perpetually passing off from the surface of all bodies whatsoever, and exhibiting the exact resemblance of the objects from which they are detached. Other images, too, are formed spontaneously in the atmosphere, as we see clouds, at times, form themselves into likenesses of things on the face of the sky. Of images, accordingly, the number is infinite, so that, whenever a man wishes to think on any thing, the image of it is generally ready

[1] Ver. 780, *seq.* [2] I. 347—383, *et seq.*
[3] On the Soul, see book iii. *passim.*

to present itself for his contemplation. If he cannot recollect what he wishes to think on, he may consider that an image of it is not at hand. Dreams are excited by images, which, as they pass through the air, penetrating the coverings of the body, come in contact with such atoms of the soul as are at the surface of the body, and thus communicate their impressions to the whole of the soul and mind.

Vision is produced by the same images flying off from the surface of the objects at which we look, and striking on the eye. Reflection from mirrors, and other smooth surfaces, is produced by the image first striking the reflecting plane, and then being reverberated to the eye. *Voice*, like all sounds, is a corporeal substance, because it frequently, as it passes forth, causes abrasion of the throat, and because much speaking exhausts the corporeal frame by detraction of atoms.[1]

The members and organs of the body were not formed with a design that they might be used; for there could have been no design in the offspring of fortuitously meeting atoms; but, as they have been formed, and we find them capable of being used, we apply them, accordingly, to the uses for which they seem adapted. The feet were not formed for walking, but, as we find they enable us to walk, we employ them in walking.[2]

Of all our knowledge the foundation must rest on the perceptions of our senses. To our senses we can assuredly trust, for what shall refute them? Will any thing distinct from them refute them, or will they refute one another? That which shall convict them of falsehood must be more trust-worthy than they; but what can be more trust-worthy? What shall convince us that those bodies which appear to the senses square, or hot, or black, are not possessed of those qualities?[3]

The motions and combinations of atoms being established, all natural phænomena, as thunder, lightning, rain, earthquakes, are easily shown to arise from their changes of place and effects on one another.[4]

Even were it not demonstrable that the world was fortuitously formed by the coalescence of atoms, it might yet be safely affirmed, from the numerous faults apparent in it, and from the various causes of suffering to animal life which it

[1] Of images, &c. see book iv. *passim*. [2] IV. 825.
[3] IV. 380—523. [4] See book v.

contains, that it was not made by divine wisdom as an abode for living creatures.[1] It sprung into being casually; and animals, that casually sprung from it, make the best of that abode to which they are confined, and from which there is no release but death.

This world, which we inhabit, is not the only one in the universe.[2] The number of atoms being infinite, it is naturally to be supposed that they must have produced more worlds than one. It is therefore probable that there are many worlds of many kinds. And as these worlds have been generated, we may fairly argue that they also decay. Men, other animals, and the trees of the forest, are born but to die; and why should not a world be subject to the same fate as the things which grow in it? We see, indeed, the symptoms of decadence in the world which we inhabit; for the present productions of the earth are not of the same vigour as those of its earlier days. All, then, around us, we may conclude is making progress towards dissolution; the great globe will continue to sink and grow infirm, until at last, mouldering and disruptured, it scatters its atoms through surrounding space, to contribute to the formation of other worlds like or unlike itself.

Star after star from heaven's bright arch shall rush,
Suns sink on suns, and systems systems crush;
Headlong, extinct, to one dark centre fall,
And Death, and Night, and Chaos, mingle all.
Till, o'er the wreck, emerging from the storm,
Immortal Nature lifts her changeful form,
Mounts from her funeral pyre on wings of flame,
And soars and shines another and the same. *Darwin.*

Such were the general tenets of Lucretius as a natural philosopher; tenets on which the reader will find him amply enlarging in the following pages.

His doctrines as a *moral philosopher* may be noticed with greater brevity.

His great boast as a moralist was, that he freed men from the terrors of death, and of suffering after death. The soul, says he, when it is separated from the body, is dispersed among the matter from which it was collected, and the man ceases to be. His atoms continue to exist, for they are indestructible, but his own existence, as an individual being, is no more. He

[1] V. 196, *seq.* [2] II. 1075.

is separated into his parts, and his consciousness that he ever existed as a whole is at an end. Of what has been, he will have no recollection; of what shall be, he will have no knowledge. Why then should he dread to die, when after death no suffering can ensue? He that is about to die young, may felicitate himself that he shall escape that trouble and affliction of which some falls to the lot of every man; he that dies at an advanced age, may be satisfied that he has had so long opportunity for those enjoyments of which no man fails to obtain some. After a certain period life offers nothing new, and why should we seek to prolong it?[1]

The greatest enjoyment of life consists in tranquil pleasure. To labour for honour and dignities, which are unsatisfactory when attained, is mere folly. Nature has supplied every thing necessary to satisfy our wants, and to enable us to spend our existence in ease, contentment, and pleasure; if we only study the best method of making the most of what is set before us. A wise man can live on a little; and to live contentedly on a little is to be equal in enjoyment to him who has more than ourselves, and who, however much he may have, can have no solid satisfaction unless he is contented with that which he possesses.[2] The highest degree of wisdom that we can attain, is to be able to look down from the serene elevations of philosophy, on the unreasoning crowds wandering beneath us, seeking for the path of happiness, and vainly hoping to find it in the pursuit of the splendours and distinctions of the world.[3]

Whether he really believed in the existence of gods, that is, of beings of a similar but superior nature to ourselves, it is not easy, from the perusal of his works, to decide. He at times speaks of gods, like Epicurus, as certainly existing,[4] and enjoying a state of tranquil felicity, unconcerned about the affairs of the world, and unaffected by human good or human evil.[5] At other times, he seems to consider them as mere creatures of the imagination, to which men have attributed, in the operations of nature, those effects of which they cannot discover the causes.[6]

[1] Book iii., *sub fin.* [2] II. 20—60. [3] II. 1—13.
[4] VI. 76. In ii. 599, he notices that the earth is called *magna deûm Mater, Materque ferarum,* as if gods and beasts had alike sprung from her. [5] II. 644—651. [6] V. 1168, *seq.*

The first edition of Lucretius was printed at Brescia, by Ferandus, without date, but, as Wakefield and others think, about the year 1470. It is of all *editiones principes* the most rare.

The second edition appeared at Verona, printed by Freidenperger, in 1486, and the third at Venice, by T. de Ragazonibus, in 1495. From Venice, too, in 1500, came forth the first edition of Aldus; and fifteen years afterwards the second, superintended by Naugerius, who did more to make his author intelligible than had been done in the former edition. In the mean time, however, (1511,) had appeared at Bononia the edition of Baptista Pius, who brought much learning and ability to bear upon his author, and many of whose notes are still worthy of preservation.

The second edition of Aldus is said by Lachmann[1] to have been greatly improved from the revised text of Michael Marullus, which was published from his manuscripts after his death, by *Petrus Candidus*, whose name the edition bears, at Florence, in 1512; of which text succeeding editors have overlooked the merits, or have been unwilling to do justice to them.

But all other editions were thrown into the shade by those of Lambinus, of which the first appeared in 1563, the second in 1565, and the third in 1570. Of all editors and expounders of Lucretius, Lambinus still deserves to stand at the head. He is accused by Wakefield of *inconsulta temeritas*, injudicious rashness, in intruding his own conjectures into the text; and by Eichstadt, of having had too high an opinion of his own judgment and ability; but though there be some grounds for such accusations, his character as an editor is still of the highest order. He brought to his work a powerful mind, and, knowing that Lucretius always intended to write sense, he took upon himself to put sense, perhaps at times too arbitrarily, into verses which had been left meaningless by transcribers. And it is surely no dishonour to him to have shown his contempt for such a man as Gifanius, who, in 1565, printed an edition at Antwerp, and whose annotations have little other claim to notice than that of attacking Lambinus with the meanness with which a low mind always attacks a higher.

[1] Prolegom. in Notas, p. 11.

There were some other editions, but of not much account, between Gifanius's and that of Tanaquil Faber, which was published in 1662, containing notes, brief indeed, but evincing the great learning and acuteness of the editor.

To Faber, in 1695, succeeded Creech. His text is Lambinus's with scarcely any variation, and though he never fails to expose a mistake of Lambinus when he finds one in his commentary, he is very ready to profit by all Lambinus's instructions. His *interpretatio*, after the manner of the Delphin editions, is of little use, for, wherever there is any difficulty of construction, he invariably abbreviates. Yet, if we may credit the last editor, Lachmann, "multa rectiùs interpretatus est quàm scripsit, in philosophiâ explicandâ sane diligens, sed linguæ Latinæ imperitissimus." This is too strong; but there are in his notes inelegances and inaccuracies.

In 1725 appeared the splendid edition of Havercamp, which is extremely useful, as containing all the notes of Lambinus, Gifanius, Creech, and Faber, with a selection from those of Pius, and with a few, of considerable value, from Abrahamus Preigerus, a friend of Havercamp. Of Havercamp's own there is comparatively little.

At length, in 1796, came out, with a dedication to Fox, the well-known edition of Wakefield. Wakefield had discovered, by the inspection of a manuscript or two, that Lambinus had taken, as he thought, unjustifiable liberties with the text of Lucretius, and conceived that he should be enabled to restore it to something like its original integrity. Had he been content to reinstate only those words or phrases which Lambinus or others had unreasonably ejected, he might have done greater service, but he replaced also such readings as any editor would have been blamed for suffering to remain. I will give one instance. In Lambinus and Creech the 863rd verse of the third book stands thus:

Interrupta semel quum sit repetentia nostra;

"repetentia nostra," our memory or recollection. This is intelligible; but Wakefield finding in manuscripts *nostris*, replaced it as a *crux* to his reader, who, as soon as he comes to it, is stuck fast. What, he inquires, is to be understood with *nostris?* It is in vain to seek for any thing in what precedes, and he must consult Wakefield's notes to find that, according

to Wakefield's notion, *rebus* must be supplied. How much the difficulties in an author may be increased by such changes is easily conceivable; but he who has only read Lambinus or Creech's edition of Lucretius, can have no conception how much the difficulties in Lucretius have been increased by Wakefield's arbitrary alterations. Whether Wakefield ever "construed through a brick wall," I do not know; but that he has raised abundance of brick walls through which others are left to construe, is manifest. There is in his notes, besides other unnecessary matter, a vast quantity of superfluous railing at the *inscitia* and *inverecundia* of Lambinus, and the *inscitia* and *stupor* of Creech, of which the reader may see an average specimen on vi. 582, and in various other places. A man worthy to edit Lucretius should have forborne to apply the term *inscitia* to such a predecessor as Lambinus.

In 1801, Wakefield's text was reprinted at Leipsic by Eichstadt, who had previously obtained repute by his edition of Diodorus Siculus. The first volume, containing the text of the six books, judicious *prolegomena*, and an excellent index, is the only one that has appeared.

In 1828 came forth the edition of Forbiger, which, chiefly perhaps from the convenience of its size, has been much used. His text is Wakefield's, with but very few alterations, and all his explanations of passages are Wakefield's. His work, says Lachmann, was mercenary; and it would be doing him great injustice to suppose him capable of seeing any thing by the light of his own intellect.

In 1850, at Berlin, appeared Lachmann's edition, in two thin volumes octavo. He is a little too fond of transposing verses, and discovering deficiencies in the text, but deserves great commendation for restoring many readings that Wakefield had ejected. His notes are not at all explanatory, but are wholly occupied about changes in the text.

With regard to versions of Lucretius, the earliest attempt to render him into English was made by John Evelyn, the author of "Sylva," who, in 1656, published the first book in verse, with a commentary. His lady designed the frontispiece,

and Waller prefixed a copy of verses. The translation is faithful, but tame.

In 1682 was published the translation by Creech, which, as the first complete version of the poet, was cordially welcomed. Evelyn furnished some laudatory couplets, saying how much he was pleased that the entire work had fallen to more vigorous hands than his own. Duke, Tate, and Otway gave also their tribute of verse, and Creech was every where known as the English Lucretius. But posterity have had time to discover the faults in his performance. Many of his lines are vigorous, but many are stiff and awkward; and the licences which he has taken with the original are almost beyond belief. Whoever will look at the commencement of his first book, will find that between the tenth and sixteenth verses he inserts five lines of his own. Similar interpolations may be found in other places; and he likewise curtails with equal freedom whenever it suits his purpose.

About the same time Dryden produced some translations, or rather paraphrases, of particular passages, executed with his usual vigour.

In 1743 there appeared, in two volumes octavo, a prose translation, which Good calls Guernier's, but which was the work of an unknown hand. Guernier, with others, furnished the plates. The version is but indifferent. Some parts of it, though printed as prose, run into blank verse.

In 1799 the first book was translated in rhyme by an anonymous author; and in 1808, also in rhyme, by the Rev. W. Hamilton Drummond. Both versions have merit, but the greater share of praise belongs to Mr. Drummond.

In 1805 Dr. Good laid before the public his two quarto volumes, containing a version of the whole poem in blank verse, with copious notes. This translation is in general pleasing and animated, but some parts are rather stiff. Taken as a whole it is by far the best extant, and is deemed, by my publisher, a desirable addition to the present volume.

In 1813 was published by subscription, in two pompous volumes quarto, the rhymed version of Thomas Busby, Mus. D. He is, to do him justice, tolerably faithful to the sense, but his couplets are far inferior to those of Mr. Drummond's First Book. His notes are heavy and tedious; and all his learning second-hand. The whole book reminds the reader of the com-

mencement of his well-known prologue, which Lord Byron, says Moore, unnecessarily travestied:

> When energizing objects men pursue,
> What are the prodigies they cannot do!

In French, Lucretius has been translated several times. The earliest version is that of the Abbé de Marolles, in prose, published in 1650, which has not obtained more esteem than his other translations of classical authors. In 1685 another prose translation was published by the Baron de Coutures, which is paraphrastic, but seems tolerably faithful to the sense. In 1768 La Grange published a third, which gives the thoughts of the poet with exactness, but wants vigour and animation; and in 1794 Le Blanc de Guillet brought out a fourth, in verse, which I have not minutely examined, but on which his countrymen set no very high value. The last, in 1825, was that of Pongerville, in prose, rather a paraphrase than a translation, and preserving nothing of the sententiousness of Lucretius.

The Italian version of Marchetti, in blank verse, published in London 1717, and since several times reprinted, has always been highly esteemed.

The Germans have three translations; one by Mayr, 1784, in prose, which Degen, cited by Moss, calls "pretty accurate;" another by Meineke, 1795, in hexameter verse, which is generally considered faithful to the sense; and the last by Knebel, 1821, which is also in hexameter verse, and which is the most highly valued of the three.

The Dutch have a prose translation by De Wit, printed in 1701, which Good says that he had seen, "but without being induced to imitate it."

I beg leave to observe, that, in the notes attached to the following translation, I have not taken upon me to refute any of the doctrines of Lucretius or Epicurus. To have offered formal refutations of them would have occupied more space than could be afforded in the present volume; and many of them, in these days, require no refutation. I have therefore restricted myself to discharging that which Dryden admonishes me to be the duty of a translator,—*to do my author all the right I can, and to translate him to the best advantage.*

Those who seek for arguments against his tenets, physical or moral, may find them in Lactantius; in Arnobius; in the Anti-Lucretius of Cardinal Polignac; in the Bridgewater Treatises; and in abundance of other English books.

The famous refutation by Cardinal Polignac, called *Anti-Lucretius*, I might have quoted in every page; and the reader will perhaps wonder that I have not done so. But I forbore to quote him, as I forbore to quote others. He assailed Lucretius with great determination; his versification, though deficient in Lucretian ardour, is always respectable, and sometimes elevated; and he would perhaps be more read, had he not *unluckily*, as Voltaire observes, *when he attacted Lucretius attacked Newton.*

LUCRETIUS.

BOOK I.

ARGUMENT.

Lucretius invokes Venus as the great cause of production, ver. 1—44. He then dedicates his work to Memmius; praises Epicurus, whose doctrine he follows; vindicates his subject from the charge of impiety; exposes the emptiness of the religious system of his day, and the fictions of the poets; and introduces, not without allusion to the difficulties to be overcome, the great arguments of which he proposes to treat, ver. 45—159. Entering upon his subject, he shows, *first*, that *nothing can proceed from nothing, and that nothing can return to nothing*, ver. 160—265. *Secondly*, that there are certain minute corpuscles, which, though imperceptible to our senses, are conceivable in our minds, and from which all things originate, ver. 266—329. *Thirdly*, that there is *vacuum* or empty space, ver. 330—430. *Fourthly*, that there IS nothing in the universe but *body* and *space*, and that all other things which are said TO BE, are only *adjuncts* or *events*, *properties* or *accidents* of body and space, ver. 431—483. He then proceeds to demonstrate that the primary corpuscles, or elements of things, are perfectly solid, indivisible, and eternal, ver. 484—635. He refutes those who had held other opinions, as Heraclitus, who said that fire was the origin of things; and others, who had maintained the same of air, water, and earth, ver. 636—712. He attacks Empedocles, who said that the universe was compounded of the four elements, and Anaxagoras, who advocated the *homœomeria*, ver. 713—919. He then contends that the universe is boundless, that atoms are infinite in number, and that space must be unlimited, ver. 920—1050. Lastly, he refutes those who think that there is a centre of things, to which heavy bodies tend downwards, and light bodies upwards; and concludes with a praise of philosophy, which assists mankind to penetrate the mysteries of nature.

O BOUNTIFUL Venus,[1] mother of the race of Æneas,[2] delight of gods and men, who, beneath the gliding constellations of heaven,[3] fillest with life[4] the ship-bearing sea and the fruit-producing earth;[5] since by thy influence every kind of

[1] O bountiful Venus.] Ver. 2. *Alma Venus.* The word means *kind, bountiful, benignant, nourishing*, from *alo*, to nourish. "It is said of the gods," says Forcellini, "particularly such as are thought to give life or food to men." Thus we have *alma Ceres*, Virg. Geo. i. 7, *alme Sol*, Hor. Carm. Sæc. 9, besides *alma Tellus*, and many other similar applications of the epithet. Horace has also *alma Venus*, Od. iv. 15, 31. And Ausonius has the same expression in many places, besides this inscription for a statue of Venus, which he has borrowed from Lucretius:

Orta salo, suscepta solo, patre edita cœlo,
Æneadûm genetrix, hic habito alma Venus.

"Others," says Creech, "interpret *læta, fœcunda, grata;* I prefer *benigna*, a word which expresses all the other virtues of Venus, to which Lucretius has regard not less than to her fecundity."

[2] Mother of the race of Æneas.] Ver. 1. *Æneadûm genetrix.* He thus names the Romans, as being descended from Æneas. Virgil and Ovid give them the same appellation.

[3] Gliding constellations of heaven.] Ver. 2. *Cœli labentia signa.* The same as *signa labentia cœlo*, or *in cœlo;* the form of expression which Virgil uses, Æn. iii. 515, *Sidera cuncta notat tacito labentia cœlo.*

[4] Fillest with life.] Ver. 4. *Concelebras.* The only question as to the translation of this word is, whether it is to be rendered *visitest frequently*, or *renderest populous*, that is, *fillest with animal life.* The latter signification is, in my opinion, infinitely better adapted to what follows, than the former; and I have the best of the commentators on my side. Thus Pius: *Auges tuo dulci initu, ut ita multiplicata celebria sint et populosa.* Lambinus: *Celebres* [*terras*] *reddis.* Creech: *Reples et exornas.* These commentators notice, indeed, the other acceptation, but give the preference to this. Wakefield interprets "frequentas—permeas—incolis—agitas," all which he gets from Nonius Marcellus, who has "commoves." The word occurs twice in other places of Lucretius, but not in any sense that illustrates this passage. It is to be observed that the preposition *con*, with, is not to be considered useless; looking to the subject of the poem, we may regard it as signifying that Venus (herself material) *co-operates with matter in general* to render the earth and sea fruitful.

[5] The ship-bearing sea and the fruit-producing earth.] Ver. 3. *Quæ maro navigerum, quæ terras frugiferentes Concelebras.* The words are rendered literally, except that for the relative pronoun is substituted the copulative conjunction. Evelyn gives it with equal exactness:

——Comfort bring and mirth
To the ship-bearing seas, corn-bearing earth.

Fruges, however, means fruits of the earth in general.

living creature is conceived, and, springing forth, hails the light of the sun.[1] Thee, O goddess, thee the winds flee; *before* thee, and thy approach, the clouds of heaven *disperse;* for thee the variegated earth[2] puts forth[3] her fragrant flowers; on thee the waters of ocean smile, and the calmed heaven beams with effulgent[4] light. For, as soon as the vernal face of day[5] is unveiled, and the genial gale of Favonius exerts its power unconfined, the birds of the air first, O goddess, testify of thee and thy coming, smitten in heart by thy influence. Next, the wild herds bound over the joyous pastures, and swim across the rapid streams. So all kinds of living creatures, captivated by *thy* charms and thy allurements, eagerly follow thee whithersoever thou proceedest to lead them. In fine, throughout seas, and mountains, and whelming rivers,[6] and the leafy abodes of birds, and verdant plains, thou, infusing balmy love into the breasts of all, causest them eagerly to propagate their races after their kind.

Since thou alone dost govern[7] all things in nature, neither does any thing without thee spring into the ethereal realms of light, nor any thing become gladsome or lovely; I desire thee to be my associate[8] in this my song, which I am essaying

[1] Hails the light of the sun.] Ver. 5. *Visitque—lumina solis.* "Exoritur, prodit in lucem, hac lucis usurâ frui incipit." *Lambinus.*

[2] Variegated earth.] Ver. 7. *Dædala tellus.* This is the exact signification of the word. "Why the earth is called *Dædala* by Lucretius, as well as Minerva by Ennius, and Circe by Virgil, from *variety of objects and contrivances*, it is easy to understand, since δαιδάλλειν, in Greek, signifies *to vary.*" *Festus.*

[3] Puts forth.] Ver. 7. *Submittit.* "Submittere" is "de sub mittere," says Faber, and so says Creech, whom Wakefield follows; interpreting "sends from her lap, causes to spring *de sub solo*, from underneath the ground."

[4] Effulgent.] Ver. 9. *Diffuso.* We have the same phrase, iii. 22, *Æther Integer et largè diffuso lumine ridet.*

[5] Vernal face of day.] Ver. 10. *Species—verna diei.* The same as the *face of vernal day;* i. e. when the spring has arrived. *Species* for *vultus*, or *aspect.* Comp. iv. 243.

[6] Whelming rivers.] Ver. 18. *Fluviosque rapaces.* Able to carry away rocks, trees, and other substances; of resistless strength. Virgil borrows the expression, Geo. iii. 142, "Fluviosque innare rapaces."

[7] Since thou alone dost govern.] Ver. 22. *Quæ quoniam—sola gubernas.* Literally, *who, since thou alone governest.* To avoid stiffness, I have often rendered the relative pronoun in this way.

[8] I desire thee to be my associate.] Ver. 25. *Te sociam studeo esse.*

to compose on the NATURE OF THINGS,[1] for *the instruction of* my *friend* Memmius,[2] whom thou, O goddess, hast willed at all times to excel, graced with every gift. The more therefore do thou, O goddess, bestow on my words an immortal charm. Cause the fierce pursuits of war meanwhile to cease, being lulled to rest throughout all seas and lands. For thou alone canst bless mortals with tranquil peace; since Mars, the lord of arms, who controls the cruel tasks of war, often flings[3] himself upon thy lap, vanquished by the eternal wound of love;[4] and thus looking up, his graceful neck[5] thrown back, he feasts his eager eyes with love, gazing intently on thee, O goddess, and his breath, as he reclines, hangs on thy

It may seem absurd that divine assistance should be invoked by an Epicurean, who thinks that the gods take no interest in human affairs; but it is to be considered that Lucretius here writes in the character of a poet, not of a philosopher. *Faber.*

[1] NATURE OF THINGS.] Ver. 26. *Rerum naturâ.* By this expression Lucretius intends not merely the objects of what we call the material universe, but all that concerns man and the world in which he dwells. His full meaning is shown in iii. 1085, where, speaking of the anxieties of mankind, and their ignorance of the cause of them, he says, that if this cause were at all surmised, each, in preference to all other pursuits, would study *naturam cognoscere rerum;* that he might by that means understand how little is to be feared after death, and might become one who, as Virgil expresses it,

———metus omnes et inexorabile fatum
Subjecit pedibus, strepitumque Acherontis avari.

[2] Memmius.] Ver. 27. *Memmiadæ nostro.* Properly the son of Memmius; or one of the *Memmiadæ*, or family of Memmius. Lambinus thinks him the C. Memmius Gemellus, to whom Cicero addresses some letters in the thirteenth book of his Epist. ad Fam. See the Life of Lucretius prefixed to this translation.

[3] Since Mars—who controls—often flings, &c.] Ver. 33. *Quoniam belli fera mœnera Mavors Armipotens regit, in gremium qui sæpe tuum se, &c.* The order of the words in the translation is, for the sake of ease, varied a little from the original, which, if exactly given, would stand thus: *Since Mars—controls the cruel tasks of war, who often flings himself, &c.*

[4] Eternal wound of love.] Ver. 35. *Æterno vulnere amoris.* Virgil borrows this expression: Cùm Juno, æternum servans sub pectore vulnus, Æn. i. 36. And Pope has taken it for his Messiah: "And hell's grim tyrant feel th' eternal wound."

[5] Graceful neck.] Ver. 37. *Tereti cervice.* I can find no better single epithet than this. Among the Latins the word *teres* included the ideas of *length*, *roundness*, and *smoothness*. Hor. Od. ii. 4, 21. Brachia et vultum teretesque suras Integer laudo.

lips. Bending over him, O goddess, as he reposes, to embrace him[1] with thy sacred person, pour from thy lips sweet converse, entreating unruffled peace, illustrious *divinity*, for *thy* Romans. For neither can we pursue our task[2] with tranquil mind, in this untranquil time[3] of our country; nor *can* the illustrious scion of Memmius, at such a crisis, desert the common interest.

For what remains,[4] *lend* me, O Memmius, thy unprejudiced ears,[5] and apply thyself, released from cares, to the investigation of truth, *and* leave not, *as things* despised, my offerings arranged for thee with faithful zeal, before they are understood. For I shall proceed to discourse to thee of the whole system[6] of heaven and the gods, and unfold to thee the first principles of all things,[7] from which nature produces, developes, and sustains all, and into which she again resolves them at their dissolution:[8] these, in explaining our subject, we are accustomed to call matter, and the generative bodies of things,

[1] Bending over him—as he reposes, to embrace him.] Ver. 39. *Hunc recubantem—circumfusa super.* Literally, *poured round above him reclining.* To make readable English, I was obliged to amplify a little.

[2] Pursue our task.] Ver. 42. *Agere hoc.* "Hoc ipsum quod suscepimus, attentè et summâ curâ agere." *Lambinus.* So also Faber. Comp. iv. 970.

[3] Tranquil mind, in this untranquil time.] Ver. 42. *Tempore iniquo—æquo animo.* I have endeavoured to preserve a resemblance to the original.

[4] For what remains.] Ver. 45. *Quod superest.* "He calls for his friend's attention. By *quod superest*, it is to be observed, he means *quod reliquum est.* He often uses the same expression. Thus lib. ii. 39, *Quod superest*, animo quoque nil prodesse putandum. And vi. 998, *Quod superest*, facilè hinc ratio reddetur, *&c.*" *Lambinus.* Lucretius sometimes, however, uses *quod superest* in the sense of *præterea* or *denique.*

[5] Unprejudiced ears.] Ver. 45. *Vacuas aures.* Free alike from business and from prejudice.

[6] The whole system.] Ver. 49. *Summâ ratione.* "Totâ naturâ." *Creech.*

[7] First principles of all things.] Ver. 50. *Rerum primordia.* "Rerum principia." *Lambinus.* Lucretius uses *primordia* and *principia* indifferently, (*Forb.* ad iii. 263,) for the *original atoms*, or *primary particles* of all things. Modern chymists use the term *ultimate particles.*

[8] She again resolves them at their dissolution.] Ver. 52. *Natura perempta resolvat.* That is, *res peremptas*, as Lambinus, Faber, and Creech unanimously interpret. Lucretius changes the gender to the neuter, after having just before used *res*, which creates some obscurity.

and to designate as the seeds of *all* things, and to term them primary bodies, because from them *as* primary all things are derived.

[For the whole nature of the gods[1] must necessarily, of itself, enjoy immortality in absolute repose, separated, and far removed, from our affairs; for, exempt from all pain, exempt from perils, all-sufficient in its own resources, *and* needing nothing from us, it is neither propitiated by services *from the good*, nor affected with anger *against the bad*.]

When the life of men[2] lay foully grovelling before *our* eyes, crushed beneath the weight of a Religion,[3] who displayed her head from the regions of the sky, lowering over mortals with terrible aspect, a man of Greece[4] was the first that dared to raise mortal eyes against *her*, and first to make a stand against *her*. Him neither tales of gods,[5] nor thunderbolts, nor

[1] For the whole nature of the gods, *&c.*] Ver. 57. The passage enclosed in brackets is considered by Faber, Bentley, Wakefield, and others, to be out of place in the original. It occurs again ii. 645, whence Isaac Vossius thinks it was transferred to this place, by some critic who wished to show that Lucretius was at variance with himself, in invoking divine assistance, and yet excluding the gods from all concern with mortals. If it were so, the critic probably placed it in the margin, from which it crept into the text. Lachmann, the last editor, has struck it out. See note on ver 25.

[2] When the life of men, *&c.*] Ver. 63. "The terrible picture which Lucretius has drawn of Religion, in order to display the magnanimity of his philosophical hero in opposing her, is thought to be designed with great boldness and spirit." *Burke* on the Sublime and Beautiful, *sub fin.* But, as Burke indicates, the terror of the picture is produced, not by exactly portraying the features of the phantom, but by leaving them obscure and undefined. It is a picture of the same class as that of the spirit in Job: "A spirit passed before my face;—it stood still, but I could not discern the form thereof:" or as that of Death in Milton: "If shape it might be call'd, that shape had none Distinguishable."

[3] Religion.] Ver. 64. *Religione.* Evelyn, Drummond, Good, and the anonymous translator of the First Book, as well as Coutures, concur in rendering this word by *Superstition*. But this is wrong; for neither Epicurus nor Lucretius attacked the belief in the gods, and in punishments after death, as a *Superstition*, but as a *Religion*. It is a Superstition to us, but it was a Religion to men of those days. Accordingly Marchetti, Creech, and Busby have very properly adopted the term *Religion* in their versions.

[4] A man of Greece.] Ver. 66. *Graius homo.* Epicurus.

[5] Tales of gods.] Ver. 69. *Fama deûm.* "De diis fabulæ." *Creech.* The reader will find in Wakefield's edition *fana deûm*, from

heaven itself with its threatening roar, repressed, but roused the more the active energy of his soul, *so* that he should de sire to be the first to break the close bars of nature's portals. Accordingly the vivid force of his intellect prevailed, and proceeded far beyond the flaming battlements[1] of the world, and in mind and thought traversed the whole immensity of space; hence triumphant, he declares to us what can arise *into being*, and what can not; in fine, in what way the powers of all things are limited, and a deeply-fixed boundary assigned to each. By which means Religion, brought down under *our* feet, is bruised in turn; and *his* victory[2] sets us on a level with heaven.

In *treating of* these subjects, I fear thou mayest haply think that thou art entering on forbidden elements of philosophy, and commencing a course of crime. Whereas, on the contrary, that *much-extolled* Religion[3] has too frequently given birth to criminal and impious deeds; as *when* at Aulis the chosen leaders of the Greeks, the chief of men, foully stained the altar of the virgin Trivia with the blood of Iphigenia. When the fillet, clasping her virgin tresses, dropped from each cheek in equal length, and she saw her sire stand sorrowing before the altars, and the attendant priests, close by him,[4] concealing the knife, and her countrymen shedding tears at the sight of her, she, dumb with fear, dropping

a conjecture of Bentley's, which to Wakefield appeared *egregia*, and which Lachmann has adopted. I must say that I think the old *fama* to be preferred, as being a word of much larger meaning.

[1] Beyond the flaming battlements, &c.] Ver. 74. *Extra flammantia mœnia mundi.* "He pass'd the flaming bounds of space and time." *Gray*, Progr. of Poesy. "Not even the whole world is sufficient for contemplation and meditation in human intellectual excursion, but the thoughts often pass beyond the bounds of that *whole* which surrounds us." *Longinus*, Sect. xxxv.

[2] *His* victory.] "Victoria Epicuri." *Lambinus.*

[3] That *much-extolled* Religion.] Ver. 83. *Illa Religio.* The old reading was *olim*, but *illa* seems infinitely better.

[4] Close by him.] Ver. 91. *Hunc propter.* These words may be understood as meaning either *near Agamemnon*, or on *account of Agamemnon.* Evelyn and Creech prefer the latter sense; but Faber, Preiger, and Good adopt the former, which appears to me the more reasonable of the two. It seems natural to conceive Iphigenia, who is the chief personage, as simply contemplating the priests concealing their knives *near her father*, not as considering whether they were concealing them *on account of her father* or not.

on her knees, sank to the earth; nor could it, at such a time, avail the hapless maiden that she had been the first to bless the king with the name of father. For, raised by the hands of men, and trembling, she was led to the altar; not that, the solemn service of sacrifice being performed, she might be accompanied with the loud bridal hymn; but spotless, though stained, she might, even in her wedding prime, fall a sad victim by her father's immolating hand, that a successful and fortunate voyage might be granted to the fleet. To such evils could Religion persuade *mankind!*

Wilt thou too, overcome by the frightful tales of bards, ever seek to turn away from me? *Surely not;* for doubtless I, even now, could invent[1] for thee many dreams, which might disturb the tenor of thy life, and confound all thy enjoyments with terror. And with reason too *under the present system of belief;* for did men *but* know that there was a fixed limit to their woes, they would be able, in some measure, to defy the religious fictions and menaces of the poets; *but* now, since we must fear eternal punishment at death, there is no mode, no means, of resisting *them.* For men know not what the nature of the soul is; whether it is engendered *with us,* or whether, on the contrary, it is infused into us at our birth,[2] whether it perishes with us, dissolved by death, or whether it haunts the gloomy shades and vast pools of Orcus, or whether, by divine influence, it infuses itself into other animals, as our Ennius[3]

[1] I, even now, could invent.] Ver. 105. I, as a poet, could, like other poets, invent abundance of tales, magnifying the wrath of the gods, and inculcating the probability of Tartarean punishments for errors committed in this world; tales that would haunt thy imagination, disturb thy peace of mind, and contribute to make thee the slave of anxiety and perplexity.

[2] Is infused into us at our birth.] Ver. 114. *Nascentibus insinuetur.* The same questions have been asked by other philosophers since Lucretius. "Relying on our acquired knowledge," says Voltaire, "we venture to discuss the question whether the soul is created before us? whether it comes from nothing into our bodies? At what age it placed itself within us? . . . . Whether, after animating us for a few moments, its essence is to live after us in eternity? . . These questions have an appearance of sublimity; what are they but the questions of men born blind, discussing the nature of light?" See more on this subject, iii. 670, *seq.*

[3] Ennius.] Ver. 118. He was a Pythagorean, and thought that the

sung, who first brought from pleasant Helicon a crown of never-fading leaf, which should be distinguished in fame throughout the Italian tribes of men; though in addition, however, Ennius, setting *it* forth in deathless song, declares that there are temples of Acheron, whither neither our souls nor our bodies penetrate, but *only* phantoms, strangely pale, from amongst whom he relates that the apparition of undying Homer, rising up before him, began to pour forth briny tears, and to expound in words the nature of things.

Wherefore with reason then, not only an inquiry concerning celestial affairs is to be accurately made by us, (*as* by what means the courses of the sun and moon are effected, and by what influence all things individually are directed upon the earth,) but especially also we must consider, with scrutinizing examination,[1] of what the soul and the nature of the mind consist, and what *it is*, *which*, haunting us, *sometimes* when awake, *and sometimes* when overcome by disease or buried in sleep, terrifies the mind; so that we seem to behold and to hear *speaking* before us, those whose bones, after death is passed, the earth embraces.

Nor does it escape my consideration, that it is difficult to explain in Latin verse the profound discoveries of the Greeks, especially since we must treat of much in novel words, on account of the poverty of our language, and the novelty of the subjects. But yet thy virtues, and the expected pleasure of thy sweet friendship, prompt me to endure any labour whatsoever, and induce me to out-watch the clear *cold* nights,[2] weighing with what words, with what possible

soul of Homer had passed into himself. *Pers.* Sat. vi. 10. Cicero alludes to the appearance of the shade of Homer to him, Quæst. Acad. iv. 16.

[1] Scrutinizing examination.] Ver. 131. *Ratione sagaci.* Lucretius is fond of this word. "Sagaces proprie canes dicuntur, quia inest in eis vis odorandi eximia." *Lambinus.* The derivation is from *sagire*, to perceive acutely.

[2] Clear *cold* nights.] Ver. 143. The original is only *noctes serenas.* The critics are all in doubt what sort of nights to understand. Muretus (Var. Lect. xviii. 13) thinks they are *summer nights.* Wakefield, with Creech, supposes that they are merely tranquil nights, free from noise, and suitable for study. But *serenus* must surely have relation to the state of the atmosphere, and I think that Evelyn had a right notion of the word when he gave the passage thus:

But yet thy worth, and the felicity

verse,[1] I may succeed in displaying to thy mind *those* clear lights, by which thou mayest be able to gain a thorough insight into *these* abstruse subjects.

This terror and darkness of the mind, therefore, it is not the rays of the sun, or the bright shafts of day,[2] that must dispel, but reason and the contemplation of nature;[3] of which our first principle shall hence take its commencement, THAT NOTHING IS EVER DIVINELY[4] GENERATED FROM NOTHING. For thus *it is that* fear restrains all men, because they observe many things effected on the earth and in heaven, of which effects they can by no means see the causes, and *therefore* think that they are wrought by a divine power. For which reasons, when we shall have *clearly* seen that NOTHING CAN BE PRODUCED FROM NOTHING,[5] we shall then have a more accurate perception of that of which we are in search, and *shall understand* whence each individual thing is generated, and how all things are done without the agency of the gods.

For if *things* came forth from nothing,[6] every kind *of thing*

I find in thy sweet friendship, me persuade
Cold nights to watch—

I have therefore added Evelyn's *cold* to Lucretius's *clear*.

[1] With what possible verse.] Ver. 144. *Quo carmine demum.* With what verse at length.

[2] Bright shafts of day.] Ver. 148. *Lucida tela diei.* "Rays of the sun. Thus the Greeks, *βέλη ἠελίοιο.*" *Faber.* Ausonius has borrowed the phrase, Luciferique pavent letalia tela diei. Mosell. 260. Mason, also, in his English Garden, ii. 151, "Bright darts of day."

[3] Contemplation of nature.] Ver. 149. *Naturæ species.* "*Species, ἡ θεωρία, ἡ θέα*, that is, *contemplation.*" *Lambinus.* So Faber. Wakefield would rather make it *form* or *image;* but who will second him?

[4] Divinely.] Ver. 151. *Divinitus.* That is, *divino numine*, as he has it in ver. 155. He is anxious to show, that however things are produced, the gods have nothing to do with their production.

[5] Nothing can be produced from nothing.] Ver. 156. *Nil posse creari de nihilo.* It is to be observed that the word *creo* was never used among the Latin writers of the better ages in the sense in which we use the word *create*, that is, *to make out of nothing.* In all but Christian theological writers it means *to produce one thing from another.* Gibbon has a remark to this effect in one of his notes.

[6] If *things* came forth from nothing, &c.] Ver. 160. *Nam si de nihilo fierent*, &c. If things could come from nothing, then, wherever, in the midst of things, there might be *nothing* existent, *something* might thence arise; wherever there might be a *vacuum* (for

might be produced from all things; nothing would require seed. In the first place, men might spring from the sea; the scaly tribe, and birds, *might spring* from the earth; herds, and other cattle, might burst from the sky; the cultivated fields, as well as the deserts, might contain every kind of wild animal, without any settled *law of* production: nor would the same fruits be constant to the *same* trees, but would be changed; *and* all *trees* might bear all *kinds of fruit.* Since, when there should not be generative elements for each *production*, how could a certain parent-producer remain invariable for *all individual* things? But now, because all things are severally produced from certain seeds, *each* is produced, and comes forth into the regions of light, from that spot in which the matter, and first elements of each, subsist. And for this cause all things cannot be produced from all, inasmuch as there are distinct *and peculiar* faculties in certain substances.

Besides, why do we see the rose put forth in spring,[1] corn in *summer* heat, and vines under the influence of autumn, if *it be* not because, when the determinate seeds of things have united together at their *proper* time, whatever is produced appears while the seasons are favourable, and *while* the vigorous earth securely brings forth her tender productions into the regions of light. But if *these* were generated from nothing, they might arise suddenly at indefinite periods, and at unsuitable seasons of the year, inasmuch as there would be no original elements, which might be restrained from a generative combination at *any* season, *however* inconvenient.

Nor, moreover, would there be need of time for the coming together of seed[2] for the growth of things, if they could grow

which he afterwards argues,) something might spring up from that *vacuum.* Should there be a vacuum in the sea, a man might spring from it; should there be a vacuum in the air, a tree might flourish out of it. Seed, or originating particles, would be quite superfluous; simple vacant space, the abode of non-entity, would suffice to produce abundance of entities. The rest of the paragraph follows of course. This is his *first argument* on this head. I have translated *fierent* "came forth," as being more suitable to what follows.

[1] The rose put forth in spring.] Ver. 175. This is his *second argument*—from *time.* If things may spring up in any place from nothing, why should they not also spring up at any time from nothing?

[2] For the coming together of seed.] Ver. 185. His *third argu-*

out of nothing. For young men might on a sudden be formed from puny infants, and groves, springing up unexpectedly, might dart forth from the earth; of which things it is plain that none happen, since all things grow gradually, as is fitting, from unvarying atoms, and, as they grow, preserve their kind, so that you may understand that all things individually are enlarged and nourished from their own *specific* matter.

Add to this, that the earth cannot furnish her cheering fruits without certain rains[1] in the year; nor, moreover, can the nature of animals, if kept from food, propagate their kind, and sustain life; *so* that you may rather deem that many elements are common to many things, (as we see letters *common to many* words,) than that any thing can exist without *its proper* elements.

Still further, why could not nature produce men of such[2] a size that they might ford the sea on foot,[3] and rend great mountains with their hands, and outlast in existence many ages of *human* life, if *it be* not because certain matter has been assigned for producing *certain* things, from which *matter* it is fixed what can *or cannot* arise? It must be admitted therefore, that nothing can be made from nothing, since things have need of seed, from which all individually being produced, may be brought forth into the gentle air of heaven.

Lastly, since we observe that cultivated places excel[4] the uncultivated, and yield to our hands better fruits, we may see

ment—from *natural growth*. If things might grow up from nothing, why might they not be enlarged, and enlarged suddenly, from nothing?

[1] Without certain rains, *&c.*] Ver. 193. His *fourth argument*—from the *necessity of certain bodies for the nutriment of others*. If things cannot even grow, after they had arisen, without the presence of certain other matter, who, he asks, can be so foolish as to believe that they arose at first from no matter at all?

[2] Produce men of such, *&c.*] Ver. 200. His *fifth argument*—from the *definite size* of animals, and other natural productions. If, for instance, men might spring from nothing, why should they not spring of a larger size from nothing? If they could grow at all from nothing, why should they not grow to any extent whatever from nothing?

[3] Ford the sea on foot.] Ver. 201. *Per vada.* "Like Polyphemus, Virg. Æn. iii. 665, Graditurque per æquor jam medium, nec dum fluctus latera ardua tinxit." *Lambinus.*

[4] Cultivated places excel, *&c.*] Ver. 209. His *sixth argument*—from the *improvement* of natural productions. If things sprung from no-

that there are in the ground the primitive elements of things, which we, in turning the fertile glebe with the ploughshare, and subjugating the soil of the earth, force into birth. But were there no *such seeds*, you might see things severally *grow up and* become much better of their own accord without our labour.

Add, too,[1] that nature resolves each thing into its own *constituent* elements, and DOES NOT REDUCE ANY THING TO NOTHING.

For if any thing were perishable in all its parts, every thing might *then* dissolve, being snatched suddenly from before our eyes; for there would be no need of force to produce a separation of its parts, and break *their* connexion. Whereas now, since all things individually consist of eternal seed, nature does not suffer the destruction of any thing to be seen, until such power assail them as to sever them with a blow, or penetrate inwardly through the vacant spaces, and dissolve *the parts.*

Besides, if time utterly destroys[2] whatever things it removes through length of age, consuming all their *constituent* matter, whence does Venus restore to the light of life the race of animals according to their kinds? Whence does the variegated earth nourish and develope them, when restored, affording them sustenance according to their kinds? Whence do pure fountains, and eternal rivers *flowing* from afar, supply the sea?[3] Whence does the æther feed the stars? For infinite

thing, why might they not improve themselves from nothing, and why might we not leave them to do so?

[1] Add, too, *&c.*] Ver. 214. Having proved that nothing is generated from nothing, he now proceeds to prove that *nothing is reduced to nothing.* To this end his *first argument* is, that if things could be reduced or resolved into nothing, there would probably be instances seen of things falling away and vanishing suddenly into annihilation, instead of all things decaying gradually into their elements as they do at present.

[2] Besides, if time utterly destroys, *&c.*] Ver. 226. The *second argument.* Things decay and are renovated; but how could this renovation take place, unless there were imperishable material atoms from which they might be recruited?

[3] Supply the sea?] Ver. 232. *Mare—suppeditant.* "Lambinus and Pareus take *suppeditant* absolutely, in the sense of *suppetunt* or *parata sunt;* but it is better to take it actively, in the sense of *supplent* or *subministrant.*" *Creech.* Creech's interpretation is doubtless right: the other is not in accordance with the drift of the paragraph.

time already past, and *length of* days, ought to have consumed all things which are of mortal consistence: but if *those elements*, of which this sum of things consists and is renewed, have existed through that *long* space, and that past duration of time, they are assuredly endowed with an immortal nature. Things therefore cannot return to nothing.

Further, the same force[1] and cause might destroy all things indiscriminately, unless an eternal matter held them more or less bound by mutual connexion. For a *mere* touch, indeed, would be a sufficient cause of destruction, supposing that there were no *parts* of eternal consistence, *but all perishable*, the union of which any force might dissolve.[2] But now, because various connexions of elements unite together, and matter is eternal, things continue of unimpaired consistence, until some force of sufficient strength be found to assail them, proportioned to the texture of each. No thing, therefore, relapses into nonexistence, but all things at dissolution return to the first principles of matter.

Lastly, *you may say, perhaps*, the showers of rain perish,[3] when Father Æther has poured them down into the lap of Mother Earth. But *it is not so; for* hence the smiling fruits arise, and the branches become verdant on the trees; *the trees* themselves increase, and are weighed down with produce. Hence, moreover, is nourished the race of man, and that of beasts; hence we see joyous cities abound with youth,[4] and

[1] Further, the same force, &c.] Ver. 239. The *third argument.* Why does not any one force destroy all substances, unless because they consist of different elementary atoms, intimately interwoven, and those atoms severally indestructible? Were not the atoms imperishable, the same force that dissolves their combination might utterly destroy them.

[2] Might dissolve.] Ver. 244. *Deberet dissolvere.* Would necessarily have the power of dissolving.

[3] The showers of rain perish, &c.] Ver. 251. The *fourth argument.* Perhaps you incline to think that things which vanish, as showers of rain, from the face of the earth, are annihilated; but to think thus would be folly; for the moisture of these showers, dispersed through the ground, assists to produce corn, and all manner of fruits. So it is with other things; the atoms of that which is dissolved increase the substance and promote the growth of that which is rising into being.

[4] Joyous cities abound with youth.] Ver. 256. *Lætas urbes puerûm florere videmus.* "*Florere* is *abundare;* with which acceptation of the word the genitive case suits extremely well." *Wakefield.*

the leafy woods resound on every side with newly-fledged birds; hence the weary cattle, sleek in the rich pastures, repose their bodies, and the white milky liquor flows from their distended udders; hence the new offspring gambol sportive, with tottering limbs, over the tender grass, their youthful hearts exhilarated with pure milk.[1] Things, therefore, do not utterly perish, which seem to do so, since Nature recruits one thing from another, nor suffers any thing to be produced, unless *its production be* furthered by the death of another.

Attend, now, *further:*[2] since I have shown that things cannot be produced from nothing, and also that, when produced, *they cannot* return to nothing, yet, lest haply thou shouldst begin to distrust my words, because the primary particles of things cannot be discerned by the eye, hear, in addition, what substances thou thyself must necessarily confess to exist, although impossible to be seen.

In the first place, the force of the wind, when excited, lashes the sea, agitates the tall ships, and scatters the clouds; at times, sweeping over *the earth* with an impetuous hurricane, it strews the plains with huge trees, and harasses the mountain-tops with forest-rending blasts; so *violently* does the deep chafe with fierce roar and rage with menacing murmur. The winds, then, are invisible bodies, which sweep the sea, the land, the clouds of heaven, and, agitating *them*, carry *them* along with a sudden tornado. Not otherwise do they rush forth, and spread destruction, than *as* when a body of liquid water[3] is

[1] Their youthful hearts exhilarated with pure milk.] Ver. 262. *Lacte novo teneras percussa novellas.* "Versus planè admirabilis," says Faber. So thinks Good, and translates it thus: *Each little heart Quivering beneath the genuine nectar quaff'd.* Why he chose to say *beneath the nectar*, I do not understand. The anonymous translator has it better:

——From their dams as the rich draughts they drain,
Gladness and health flow fast through every vein.

[2] Attend, now, *further: &c.*] He now proceeds to show that there are atoms, the primary particles of all things, so small as to be imperceptible to our senses; and lest this should be doubted, he asks why such invisible particles should not exist as well as the substance of the wind, and of odours, and of other matters, which, though we cannot see them, we must yet acknowledge to have existence? This argument extends to Ver. 329.

[3] A body of liquid water.] Ver. 282. *Mollis aquæ natura. Mol-*

borne along in an overwhelming stream, which a vast torrent[1] from the lofty mountains swells with large rain-floods, dashing together fragments of woods and entire groves; nor can the strong bridges sustain the sudden force of the sweeping water, with such overwhelming violence does the river, turbid with copious rain, rush against the *opposing* mounds; it scatters ruin with a mighty uproar, and rolls huge rocks under its waters; it rushes on *triumphant* wheresoever any thing opposes its waves. Thus, therefore, must the blasts of the wind also be borne along; which (when, like a mighty flood, they have bent their force in any direction) drive all things before them, and overthrow them with repeated assaults, and sometimes catch them up in a writhing vortex and rapidly bear them off in a whirling hurricane. Wherefore, I repeat, the winds are substances, *though* invisible, since in their effects, and modes *of operation*,[2] they are found to rival mighty rivers, which are of manifest bodily substance.

Moreover we perceive various odours of objects, and yet never see them approaching our nostrils. Nor do we behold violent heat, or distinguish cold with our eyes; nor are we in the habit of viewing sounds; all which things, however, must of necessity consist of a corporeal nature, since they have the power of striking the senses: FOR NOTHING, EXCEPT BODILY SUBSTANCE, CAN TOUCH OR BE TOUCHED.

Further, garments, when suspended upon a shore on which waves are broken, grow moist; the same, when spread out in the sun, become dry; yet neither has it been observed how the moisture of the water settled in them, nor, on the other hand, how it escaped under the influence of the heat. The

lis for *liquid* or *fluid*, as the Delphin editor justly observes. Comp. ii. 375. Virg. Æn. v. 817.

[1] Which a vast torrent, *&c.*] Ver. 283. *Flumine abundanti, quem —magnus decursus aquai.* The *quem* is the reading from certain *codices* of Wakefield, who says that Lucretius, in using the masculine gender, had in his mind the more general word *fluvius*. By such methods any thing apparently inexplicable may be explained. The *quem* should either be *quod*, as Lambinus and Havercamp have it, or we must suppose Lucretius to have used *flumen* in the masculine gender.

[2] Modes *of operation.*] Ver. 297. *Moribus.* Metaphorically, as if they were human beings.

moisture, therefore, is dispersed into minute particles, which our eyes can by no means perceive.

Besides, in the course of many revolutions of the sun,[1] a ring upon the finger is made somewhat thinner by wearing it; the fall of the drop from the eaves hollows a stone; the crooked share of the plough, *though* made of iron, imperceptibly decreases in the fields; even the stone pavements of the streets we see worn by the feet of the multitude; and the brazen statues, *which stand* near the gates, show their right hands made smaller by the touch of people frequently saluting them, and passing by. These objects, therefore, after they have been worn, we observe to become diminished; but what particles take their departure on each particular occasion, jealous nature has withheld from us the faculty of seeing.[2]

Lastly, whatever *substances* time and nature add little by little to objects, obliging them to increase gradually, *those substances* no acuteness of vision, *however earnestly* exerted, can perceive; nor, moreover, whatever *substances* waste away through age and decay; nor can you discern what the rocks, which overhang the sea, *and are* eaten by the corroding salt[3] *of the ocean*, lose every time *that they are washed by the waves.* Nature, therefore, carries on her operations by imperceptible particles.

Nor, however,[4] [5] are all things held enclosed by corporeal substance; for there is a VOID in things; *a truth* which it will be useful for you, in reference to many points, to know; and which will prevent you from wandering in doubt, and from perpetually inquiring about the ENTIRE OF THINGS, and from being distrustful of my words. Wherefore, *I say*, there is space INTANGIBLE, EMPTY, and VACANT. If this were not the case,

[1] Many revolutions of the sun.] Ver. 312. *Multis solis redeuntibus annis.* "*Solis anni* are *anni solares*, solar years." *Havercamp.*

[2] Faculty of seeing.] Ver. 322. *Speciem videndi.* "Facultatem." *Creech.*

[3] Corroding salt.] Ver. 327. *Vesco sale.* "Lucretius has used *vescus* for *edax* or *consuming*, when he says, *nec, mare quæ impendent, vesco sale saxa peresa.*" *Festus.*

[4] Nor, however.] Ver. 330. By an error of the press, these words are not made to commence a new paragraph in Forbiger's edition; which they do in Wakefield's, and all other editions.

[5] *Ib.* He now proceeds to demonstrate that there is a VACUUM in things; space empty and intangible. His arguments seem sufficiently intelligible to require no exposition.

things could by no means be moved; for that which is the quality of body, *namely*, to obstruct and to oppose, would be present *at all times, and would be exerted* against all *bodies;* nothing, therefore, would be able to move forward, since nothing would begin to give way. But now, throughout the sea and land and heights of heaven, we see many things moved before our eyes in various ways *and* by various means, which, if there were no void, would not so much want *their* active motion, *as being* deprived *of it*, as they would, *properly speaking*, never by any means have been produced at all;[1] since matter, crowded together on all sides, would have remained at rest, *and have been unable to act.*

Besides, although *some* things may be regarded as solid, yet you may, for the following reasons, perceive them to be of a porous consistence. In rocks and caves, the liquid moisture of the waters penetrates *their substance*, and all parts weep, *as it were*, with abundant drops; food distributes itself through the whole of the body in animals; the groves increase, and yield their fruits in their season, because nourishment is diffused through the whole *of the trees*, even from the lowest roots, over all the trunks and branches; voices pass through the walls, and fly across the closed *apartments* of houses; keen frost[2] penetrates to *the very marrow of* our bones; which *kind of effects*, unless there were void spaces *in bodies*, where the several particles might pass, you would never by any means observe to take place.

Lastly, why do we see some things exceed other things in weight, *though* of no greater shape *and bulk?* For, if there is just as much substance in a ball of wool as there is in *a ball of* lead, it is natural that they should weigh the same, since it is the property of all bodily substance to press every thing downwards; but the nature of a VOID, on the contrary, continues without weight. That *body*, therefore, which is equally

[1] Would not so much want *their* active motion, (*as being* deprived *of it*,) as they would, *properly speaking*, never by any means have been produced at all.] Ver. 344.

Non tam sollicito motu privata carerent,
Quam genita omnino nullâ ratione fuissent.

The construction of the English appears awkward, but answers exactly to the Latin.

[2] *Frost.*] Ver. 356. He considered *cold* and *heat* as material and active substances. Comp. ver. 495.

large *with another*, and is evidently lighter, shows plainly that it contains a greater portion of VACUITY. But the heavier *body*, on the other hand, indicates that there is in it more material substance, and that it comprises much less empty space.

That, therefore, which we are now, by the aid of searching argument, investigating, *that, namely*, which we call VOID; is doubtless mixed among material substances.

In *considering* these matters, I am obliged to anticipate that *objection* which some imagine, lest it should seduce you from the truth. They say, *for instance*, that water yields to fishes pushing *forwards*, and opens liquid passages, since the fish leave spaces behind *them*, into which the yielding waters may make a conflux; so also that other things may be moved among themselves, and change their place, although all *parts of space* be full. *But* this notion, it is evident, has been wholly conceived from false reasoning. For in what direction, I pray, will fish be able to go forward, if the water shall not give them room? *Or* in what direction, moreover, will the water have power to yield, supposing the fish shall have no power to go forward *to divide it?* Either, therefore, we must deny motion to all bodies whatsoever, or we must admit that vacuity is *more or less* inherent in *all* material substances, whence every thing *that moves* derives the first commencement of its motion.

Lastly, if two broad *and flat* bodies, after having come into collision, suddenly start asunder, it is clear that air must necessarily take possession of all the vacuum which is *then* formed between the bodies. *And* further, although that *air* may *quickly* unite to flow *into the vacancy*, with blasts blowing rapidly from all sides, yet the whole space will not be able to be filled at once; for the *air* must of necessity occupy some part first, *then another*, *till* in succession all *parts* be occupied.

But if any person perchance, when the bodies have started asunder, thinks that that *separation* is thus effected by reason that the air condenses itself, he is in error; for a vacuum is then formed *between the bodies*, which was not *there* before, and *the part* likewise *behind the bodies*, which was vacant before, is filled; nor can air be condensed in such a way; nor, even if it could, would it have the power, I think, to draw *itself* into itself,[1] and unite its particles together without *the aia*

[1] To draw *itself* into itself.] Ver. 398. *Ipse in se trahere.* Lam-

of a void. For which reason, although you may long hesitate, alleging many *objections*, you must nevertheless *at last* confess that there is vacuum in bodies.

I have the ability, moreover, to collect credit for my doctrines,[1] by adducing many *additional* arguments. But these small traces *which I have indicated* will be sufficient for a sagacious mind; *traces* by which, indeed, you yourself may discover others. For as dogs, when they have once lighted upon certain tracks on the path, very frequently find by their scent the lair of a wild beast that ranges over the mountains, though covered over with leaves; so you yourself will be able, in such matters *as these*, to note, of your own *sagacity*, one *principle* after another, and to penetrate every dark obscurity, and thence to elicit truth.

But if you shall be slow *to assent*, O Memmius, or *if* you shall at all shrink back from the subject, I can *still* certainly give you the following assurance. My tongue, *so* agreeable *to you*, will have the power of pouring forth from my well-stored breast such copious draughts[2] from mighty sources, that I fear lest slow old age may creep over our limbs, and break down the gates of life within us, before all the abundance of arguments in my verses, concerning any one subject, can have been poured into your ears. But now, that I may resume my efforts to complete in verse the weaving of *the web* which I have begun, *give me a little more of your attention.*

As it is, therefore, all nature of itself has consisted, *and consists*, of two parts; for there are bodily substances, and

binus, Creech, and others, give *Se ipse in se trahere.* Wakefield pronounces the *Se* before *ipse* to be *suffarcinatum, reclamantibus et renitentibus multis libris et codicibus.* So the readers of Wakefield and Forbiger (whom Lachmann follows) must understand *se*, or suppose *trahere* to be used absolutely.

[1] Collect credit for my doctrines.] Ver. 402.

Multaque præterea tibi possum commemorando
Argumenta fidem dictis conradere nostris.

Forbiger and Wakefield leave these lines without any point; Havercamp puts a comma after *argumenta*, as is necessary, to prevent misconstruction.

[2] Such copious draughts.] Ver. 413. "He signifies that he will pour forth, if necessary, such a profusion of arguments drawn from the doctrine of Epicurus, that it is to be feared lest Memmius and himself should grow old and die, before Memmius has understood any one subject or heard it to an end." *Lambinus.*

vacant *space*, in which these *substances* are situate, and in which they are moved in different directions. For the common perception *of all men* shows that there is corporeal consistence;[1] of *the existence of* which, unless the belief shall be first firmly established, there will be no *principle* by reference to which we may succeed, by any means whatever, in settling the mind with argument concerning matters not obvious to sense.

To proceed then, if there were no place,[2] and *no* space which we call vacant, bodies could not be situated any where, nor could at all move any whither in different directions; a fact which we have shown to you a little before.

Besides, there is nothing[3] which you can say is separate from all bodily substance, and distinct from empty space;

[1] The common perception *of all men* shows that there is corporeal consistence.] Ver. 423. *Corpus enim per se communis dedicat esse Sensus.* The common perception of all men, in all parts of the world, in all ages. "This especially Epicurus resolutely maintains, that the senses are to be trusted, and never deceive us; and that from the senses all knowledge and understanding of all things commences. So in ver. 694 of this book, Lucretius says it is the senses *unde omnia credita pendent.*" *Faber.* Epicurus establishes the existence of corporeal substance in the manner in which Johnson said that he refuted the doctrine of Berkeley, by striking his foot against a post. This was also the "common sense" method of Reid and his disciples; and which of us all, however we may reason, does not act upon it? To Berkeley has been imputed a thousand and a thousand times that which he never believed or imagined.

Lucretius adds, that unless the existence of corporeal substance be acknowledged, there will be no principle from which to reason on things in general.

[2] To proceed then, if there were no place, *&c.*] Ver. 427. This paragraph is to be understood thus: Unless there be space, where can bodies be situated? and unless there be somewhere vacuity, how can they move? He says he has shown that bodies could not move without a vacuum "a little before." See ver. 371, *seq.*

[3] Besides, there is nothing, *&c.*] Ver. 431, *seq.* On this paragraph I have to make these observations. In ver. 433, *tertia numero*, I have omitted the latter word. *Ever so diminutive* is given for *parvo denique. Shall be sensible to the touch*, is in the original *tactus erit*, Faber explaining *tactus* to mean *tactilitas* in a passive sense. See ver. 455. *Increase the number of bodies*, is *Corporis augebit numerum*, which might be rendered, *increase the quantity of body.* Lambinus and Creech, however, read *corporum;* and I have accordingly preferred to put *bodies* in the plural, and to render the succeeding words, *summamque sequetur*, "will be ranked in the multitude *of them.*"

which would, indeed, be as it were a third kind of nature. For whatsoever shall exist, must *in* itself be something, either of large bulk, or ever so diminutive, provided it be at all; when, if it shall be *sensible to* the touch, however light and delicate, it will increase the number of bodies, and be ranked in the multitude of them; but if it shall be intangible, inasmuch as it cannot hinder in any part any object proceeding to pass through it, it *then*, you may be sure, will be the empty space which we call a vacuum.

Moreover, whatsoever shall exist of itself, will either *do* something, or will be obliged TO SUFFER other things acting upon it, or will *simply* BE, so that other things may exist and be done in it. But nothing can DO OR SUFFER without *being possessed of* bodily substance, nor, moreover, afford place *for acting and suffering*, unless *it be* empty and vacant space. No third nature, therefore, *distinct* in itself, besides vacant space and material substance, can possibly be left *undiscovered* in the sum of things; no *third kind of being*, which can at any time fall under *the notice of* our senses, or which any one can find out by the exercise of his reason.

For whatsoever *other* things are said *to be*,[1] you will find them to be either *necessary* ADJUNCTS of these two things, or *accidents* of them. A *necessary* ADJUNCT is that which can never be separated and disjoined *from its body* without a disunion attended with destruction *to that body;* as the weight of a stone, the heat of fire, the fluidity of water; *sensibility to* touch in all bodies, insensibility to touch in empty space. On the other hand, *such things as* slavery, poverty, riches, liberty, war, concord, *and* other things, by the coming or going of which the nature *of the subject affected* remains uninjured, these we are accustomed (as is proper) to call ACCIDENTS.

Time, likewise, is not an existence in itself, but *it is merely* our understanding *that* collects from things themselves what HAS BEEN DONE *in the past* age; what also IS PRESENT; what, moreover, MAY FOLLOW afterwards. And it must be owned

[1] For whatsoever *other* things are said *to be, &c.*] Ver. 450. These observations about *adjuncts*, and *events* or *accidents*, are sufficiently clear to require no comment. The observations about Helen *being* carried off, *&c.*, are, says Creech, *nugæ dialecticæ*, which Lucretius would not have inserted, but that to oppose the Stoics made it necessary.

that no one has conceived of time *existing* by itself apart from *progressive* motion and quiet rest.

Moreover, when *writers* say that Helen WAS carried off, and that the Trojan people WERE subdued in war, we must take care lest, perchance, *those writers* induce us to admit that those *events, viz. the abduction of Helen and the subjugation of the Trojans*, WERE of themselves; when time, irrevocably past, has carried away those generations of men, of whom these *transactions* were the events *or accidents*. For whatever shall have been done, will properly be called an event *or accident*, whether *occurring* to lands, or to legions[1] (*that is, men*) themselves.

Furthermore, if there were not *this* bodily substance in things, nor this room and space in which all things severally are done, the flame lighted up by the love of Helen's beauty, spreading through the breast of the Phrygian Paris, would never have kindled the famous contests of cruel warfare; nor would the wooden horse have secretly set fire to the citadel of the Trojans by a nocturnal delivery of Greeks. So that you may plainly see that all transactions whatsoever do not CONSIST or EXIST of themselves, as body *does*, nor are spoken of as existing in the same way as a vacuum exists; but rather that you may justly call them events *or accidents* of body, or of space in which all transactions are brought to pass.

Bodies, besides, are partly original elements[2] of things, and partly those which are formed of a combination of *those* elements. But those which are elements of things, no force can break; for they successfully resist *all force* by solidity of substance; although, perhaps, it seems difficult *to believe* that

[1] To lands, or to legions.] Ver. 470.

Namque aliud terris, aliud legionibus ipsis
Eventum dici poterit, quodquomque erit actum.

"Whatever things have occurred, you may justly say have happened to certain *men* or to certain *lands* (for there is no *third*, besides men and things); but you cannot rightly say that those events *were; time*, therefore, to which they belonged, *is* not; nor *is* there any thing *in rerum naturâ* besides *body* and *space*." *Wakefield.*

[2] Bodies, besides, are partly original elements, *&c.*] Ver. 486. Having proved that there is nothing that can be said to exist absolutely, except body and space; he proceeds to distinguish body into two kinds, *simple* and *compound*, and to prove that simple body, of the simple primary particles of all substance, must be solid.

any thing of so solid a substance can be found in nature; for the lightning of heaven passes through the walls of houses, as *also* noise and voices *pass;* iron glows, *being penetrated by heat*, in the fire; rocks often burst with fervent heat; the hardness of gold, losing its firmness, is dissolved by heat; the icy coldness of brass, overcome by flame, melts; heat, and penetrable cold, enter into *the substance of* silver, for we have felt both with the hand, when, as we held *silver* cups after our fashion,[1] water was poured into *them* from above; so that, as far as *these instances go*, there seems to be nothing solid in nature. But because, however, right reason, and the nature of things, compel *me to hold a contrary opinion*, grant me your attention *a while*, until I make it plain, in a few verses, that there really exist such bodies as are of a solid and eternal corporeal substance; which *bodies* we prove to be seeds and primary particles of things, of which the whole generated universe now consists.

In the first place, since a two-fold nature[2] of two things, *a two-fold nature, or rather two natures* extremely dissimilar, has been found to exist, *namely*, matter, and space in which every thing is done, it must necessarily be that each exists by itself for itself, *independently of the other*, and pure *from admixture;* for wheresoever there is empty space, which we call a vacuum, there there is no matter, *and*, likewise, wheresoever matter maintains itself, there by no means exists empty space. Original substances are therefore solid and without vacuity.

Furthermore, since in things which are produced,[3] *or com-*

[1] As we held *silver* cups after our fashion.] Ver. 496. *Manu retinentes pocula rite.* I have added the word *silver* from Creech's interpretation. Lucretius seems to have had in his imagination a guest at a feast, holding up his cup partly filled with wine, for an attendant to pour hot or cold water into it. They mixed cold water with their wine in summer, and hot in winter.

[2] In the first place, since a two-fold nature, *&c.*] Ver. 504. Solid body and vacant space must exist distinct from each other; for where there is space that is not vacant, it must be filled with solid body; and in space which is filled with solid body there can be no vacuity.

[3] Furthermore, since in things which are produced, *&c.*] Ver. 512. He has proved that vacuum exists; and it must accordingly exist among compound bodies; but that which bounds it must be solid, or vacuum would bound vacuum; and this solid may be a

pounded of matter, there is *found* empty space, solid matter must exist around it; nor can any thing be proved by just argument to conceal vacuity, and to contain *it* within its body, unless you admit that that which contains *it* is a solid. But that *solid* can be nothing but a combination of matter, *such* as may have the power of keeping a vacuity enclosed. *That* matter, therefore, which consists of solid body, may be eternal, while other *substances, which are only compounds of this matter*, may be dissolved.

In addition, too,[1] if there were no space to be vacant and unoccupied, all *space* would be solid. On the other hand, unless there were certain bodies to fill up completely the *places* which they occupy, all space, which *any where* exists, would be an empty void. Body, therefore, is evidently distinct from empty space, *though each has its place* alternately; since *all space* neither exists entirely full, nor, again, *entirely* empty. There exist, therefore, certain bodies which can *completely fill the places which they occupy*, and distinguish empty space from full.

These bodies, *which thus completely fill space*, can neither be broken[2] in pieces *by* being struck with blows externally, nor, again, can be decomposed *by* being penetrated internally; nor can they be made to yield *if* attempted by any other method; a *principle* which we have demonstrated to you a little above; for neither does it seem possible for any thing to be dashed in pieces without a vacuum, nor to be broken, nor to be divided into two by cutting; nor to admit moisture, nor, moreover, subtle cold, nor penetrating fire, by which *operations and*

combination of solid original particles; and, though this compound solid may be dissolved, yet the original solid atoms of which it is composed remain imperishable. This I consider to be the drift of the argument in the text, which, perhaps from some corruption, seems not very clear. Lambinus has this comment: "Generated things have vacuity within them; otherwise they would not perish or be dissolved. But if they perish because they have vacuity in them, there must yet be matter in which there is no vacuity, solid and indissoluble, lest all things should be reduced to nothing."

[1] In addition, too, &c.] Ver. 521. There must be body that completely fills space, or how would empty space be distinguished from full?

[2] These bodies — can neither be broken, &c.] Ver. 529. Since, then, there are solid bodies, they must be eternal; for, since they contain no vacuity, how can they be broken or dissolved?

means all things *compounded* are dissolved. And the more any thing contains empty space within it, the more it yields when thoroughly tried by these means. If, therefore, the primary atoms are solid and without void, they must of necessity be eternal.

Again, unless there had been eternal matter,[1] all things, before this time, would have been utterly reduced to nothing; and whatsoever *objects* we behold would have been reproduced from nothing. But since I have shown above, that nothing can be produced from nothing, and that that which has been produced *cannot* be resolved into nothing, the primary elements must be of an imperishable substance, into which *primary elements* every body may be dissolved, so that matter may be supplied for the reproduction of things. The primordial elements, therefore, are of pure solidity; nor could they otherwise, preserved, *as they have been*, for ages, repair things, *as they have done*, through *that* infinite space of time *which has elapsed since the commencement of this material system.*

Besides, if nature had set no limit[2] to the destruction of things, the particles of matter would, by this time, have been so reduced, *by reason of every* former age wasting them, that no body compounded of them could, from any certain time, *however remote*, reach full maturity of existence. For we see that any thing may be sooner taken to pieces than put together again; for which reason, that which the infinitely long duration of all past time had broken into parts, disturbing and dissevering it, could never be repaired in time to come. But now, as is evident, there remains appointed a certain limit to destruction, since we see every thing recruited, and stated portions of time assigned to every thing according to its kind, in which it may be able to attain full vigour of age.

[1] Again, unless there had been eternal matter, &c.] Ver. 541. Had there been no such solid and imperishable bodies, things must, before this time, have been worn out and reduced to nothing, and all that we see before us, would have been a re-production from nothing. But this has been shown to be impossible.

[2] Besides, if nature had set no limit, &c.] Ver. 552. Had there been no bodies entirely solid, and not to be worn away, the atoms of things would, before this period, *vexata per ævom*, have lost their power to make efficient compounds.

To this is added,[1] that though the *primary* particles of matter are perfectly solid, yet that all things, which are formed *of them*, may be rendered soft *and yielding*, *as* air, water, earth, fire (in whatever way they may be produced, and by whatever influence they may be directed); *but this happens* because there is vacant space intermingled with *the substance of* things *compounded.* But, on the other hand, if the primordial elements of things were soft, how strong flints and iron could be produced, no explanation could be given, for, *by this supposition*, nature will be deprived of all *possibility of* commencing a foundation. *The primordial elements*, therefore, are endowed with pure solidity; by the dense combination of which all *compound bodies* may be closely compacted, and exhibit powerful strength.

Moreover, if *you still persist*[2] *to say that* no limit has been appointed to the dissolution of bodies, *you will then*, however, *have to allow that* there must remain certain *dissoluble* bodies in the world, which have not yet been assailed with any trial *of their strength.* But since *dissoluble bodies* are endued *only* with a fragile nature, it is inconsistent *to suppose* that they could have lasted through an infinite course of time, *if they had been* harassed, age *after age*, with innumerable assaults.

Further, since also a limit[3] has been assigned for the growth of things according to their kinds, and for their support of life; and since it is established by the laws of Nature what each kind can or cannot do; and *since* nothing is changed, but all things remain constant to such a degree, that even the birds of different plumage, all in succession, show, existing upon their bodies, spots distinctive of their species; we must

[1] To this is added, *&c.*] Ver. 566. The original atoms are not the less solid because soft bodies are formed from them, for this is effected by the intermixture of vacuum; were they in themselves soft, how would hard bodies be generated from them?

[2] Moreover, *if you still persist, &c.*] Ver. 578. But if you will not allow there is a limit to dissolution, you must then allow that there are dissoluble bodies which have not yet been assailed by any power sufficient to destroy them; but to conceive that such bodies exist, and that they have not been attacked, among all the changes in things since the beginning of time, by any force sufficient to take effect on them, is to suppose that which is scarcely credible.

[3] Further, since also a limit, *&c.*] Ver. 585—599. The uniform generation of natural productions must proceed from unvarying elements.

grant that *such bodies* must have *in them*[1] an immutable material substance. For if the primitive particles of things could be changed, *by* being successfully wrought upon in any way, it would then also become uncertain what might or might not arise *into being; it would be uncertain*, moreover, how far limited power, and a firmly fixed boundary, is *set* to each *kind;* nor, *with such a possibility of alteration*, would the tribes *of animals*, according to their kinds, be so constantly able to reproduce the nature, motions, mode of life, and habits of their progenitors.

Again, since even of such a body as our senses cannot perceive,[2] there is *yet* a certain extreme point, *whatever it be*, that point certainly exists without parts, and consists of the least *possible* natural substance; nor has it ever existed of itself, apart *from its body*, nor will it hereafter be able *so to exist*, since it is itself the first and last part[3] of another *body;*

[1] We must grant that *such bodies* must have *in them.*] Ver. 592, &c. *Immutabile materiæ quoque corpus habere Debent nimirum.* Or, *Such bodies must evidently have in them.* I have frequently rendered *nimirum* by *evidently.* "Successfully wrought upon." *Revicta:* i. e. "vicissim victa, et superata." *Lambinus.*

[2] Again, since even of such a body as our senses cannot perceive, &c.] Ver. 600. *Tum porro, quoniam est extremum quodque cacumen*, &c. He now proceeds to confute those who think that matter is infinitely divisible, asserting that there must be, at the extremities of the smallest conceivable body, *apices*, or points, which you cannot conceive possible to be detached from that body, and without which you cannot conceive the body to exist. "Which *apices*, or least of things," says Evelyn, "may haply prove a notion to be hardly denied, whether physically or mathematically taken, as the much-admired Gassendus largely demonstrates, where he speaks, *de non esse magnitudinem Epicuro infinitè dividuam*, whither I refer the curious." These smallest conceivable corpuscles, from which no points can be detached, and which, in consequence, are indestructible and everlasting, are the atoms of Epicurus and Lucretius, from which all things are generated; into which all things, in their turn, are dissolved; and from which all natural productions that exist, are, as long as their existence is protracted, recruited and repaired.

[3] First and last part.] Ver. 605. *Pars primaque et ima.* "Id est, et prima atque ultima." *Lambinus.* And so Evelyn:

——Since what we name
The *first*, or *last*, in bodies is the same.

The extreme point of a body is the *first* part of it, if you reckon from that point to the interior of the body; and the *last* part of it, if you reckon from the interior outwards to that point. Had it not

after which other and other like parts in succession fill up, in a condensed mass, the substance of the body, which *parts*, since they cannot consist by themselves, must of necessity adhere *to something else*, from which they can by no means be detached.

Primordial atoms are therefore of pure solidity, which, composed of the smallest points, closely cohere; not combined of a union of any *other things*, but rather endowed with an eternal, simple, *and indissoluble* existence, from which nature allows nothing to be broken off, or even diminished, reserving *these primordial atoms as* seeds for *her* productions.

Moreover, unless there shall be *some* LEAST,[1] *some point*

been for the authority of Lambinus, I was inclined to render it the *ultimate and least part.*

[1] Moreover, unless there shall be *some* LEAST, *&c.*] Ver. 617. *Præterea, nisi erit* MINIMUM. It is observed by Locke, (Essay, book ii. chap. 23, § 31,) that "the infinite divisibility of matter, whether we grant or deny it, involves us in inexplicable consequences." If we allow that matter, that is, any portion of matter, is infinitely divisible, we admit that a *finite* body contains an *infinite* number of parts; if we affirm that it is not infinitely divisible, we say, that after a certain number of divisions, we come to a portion of matter which has no parts; for that which has parts must be divisible into those parts. (See Reid's Inquiry into the Human Mind.) From this difficulty the Epicureans cleared themselves, by asserting that *there are certain least possible quantities* of matter; quantities which are of course indivisible, and which are the atoms of which all things are constituted. "Observe," says Bayle, (Art. Zeno, note G,) "that those who espouse the hypothesis of atoms, do not do it because they apprehend that an extended body may be simple, but because they believe * * other hypotheses to be impossible." This is the case with Lucretius; he says that there have from the first been atoms, into which matter may be divided, but which cannot themselves be divided; and were there not such atoms, he asks, or were there no limit to the division of matter, how could substances be kept distinct, or how could things be preserved at all? How far the discoveries of modern chemistry uphold the hypothesis of atoms, is well known. See *infrà*, on ver. 626.

Sir Isaac Newton admitted the same sort of atoms as Epicurus, referring their origination, however, to an Almighty power. "It seems probable," says he, "that God, in the beginning, formed matter in solid, massy, hard, impenetrable, moveable particles, of such sizes, figures, and with such other properties, and in such proportion to space, as most conduced to the end for which he formed them. And that these primitive particles, being solid, are incomparably harder than any porous body compounded of them; even so

where division ends, the smallest bodies will individually consist of infinite parts, as, in that case, *any* part of the half *of any body*[1] will always have its own half; nor will any thing set a limit *to this division*. What, therefore, will be the difference *in their nature* between the greatest and smallest of bodies?[2] It will not be possible that there should be any difference; for though the whole entire sum of things,[3] *or the Universe*, be infinite, yet the smallest things which exist *in it* will equally consist of infinite parts. To which *position* since just reasoning is opposed, and denies that the mind can admit it, you must be prevailed upon to acknowledge that there are bodies which exist having no parts,[4] and consist of the least possible substance; and since they are so, *since they*

very hard as never to wear or break in pieces." Note on Good's Lucretius, book i. ver. 536.

[1] *Any* part of the half *of any body*, &c.] Ver. 618. *Dimidiæ partis pars.* Preigerus observes that Lucretius does not say *what part of the half*, and therefore suspects the reading. It would be easy to understand *dimidia* with *pars*, and say *the half of the half*, but this I have not ventured to do. Creech, in his interpretation, abbreviates, according to his custom when there is any difficulty, and says *Dimidia pars semper haberet dimidiam partem.*

[2] Difference — between the greatest and smallest of bodies?] Ver. 620. *Ergo rerum inter summam minimamque quid escit?* Preigerus understands *summam rerum;* what will be the difference between the universe and the smallest of objects? And this suits very well with what follows. I have, however, thought it safer to adhere to Creech, who interprets *inter rem maximam et minimam.* Either sense is equally illustrative of the argument.

——— What difference would there be
Betwixt the *least* and *greatest* quantitie?
Evelyn.

If there be no limit to the division of matter, the smallest quantity, and the greatest, will be equally divisible into an infinite number of parts.

[3] Whole entire sum of things.] Ver. 621. *Funditus omnis summa.*

[4] There are bodies which exist having no parts.] Ver. 626. *Esse ea, quæ nullis jam prædita partibus extent.* Here Lucretius means physical or material parts or points; there are corpuscles, he says, which have no material parts, that is, no parts which can be separated from them, so as to exist of themselves. Where he says above, ver. 606, that *aliæ atque aliæ similes partes* make up an atom, he means the same material parts; not *mathematical points*, as Creech interprets it; for no number of mathematical points, which are mere suppositions and non-entities, can make a substance.

are indivisible and undiminishable, you must also concede that they are solid and eternal.

Further, unless Nature, the producer of things, had been accustomed to force all things to be resolved into minutest parts, the same *Nature* would now be unable to recruit any thing from those *parts;* because those *generated bodies* which are augmented *and repaired* by no parts,[1] cannot have *and retain unimpaired* those *affections* which generative matter ought to have, *namely,* various connexions, weights, concussions, combinations, movements, by which things are severally brought to pass.

For which reason, those who think that fire[2] is the original

[1] Because those *generated bodies* which are augmented *and repaired* by no parts, *&c.*] Ver. 632. *Propterea, quia quæ nullis sunt partibus aucta.* I have endeavoured to make the best of these words, and to translate them as seemed most suitable to the drift of the author. All editions from Lambinus to Wakefield read *multis;* which was Lambinus's conjecture. Wakefield "restored" *nullis;* saying that by bodies *nullis partibus aucta,* Lucretius means such as are in some degree *opposed to atoms,* as being, though *simplicia,* yet *grandiuscula,* and therefore *gignendis rebus minus apta;* an explanation which does not satisfy even his satellite, Forbiger, and which decidedly, I think, will satisfy no one else; for it introduces bodies to which no allusion is made in any other passage of Lucretius, and for which it would be hard to find authority in any thing that remains to us of Epicurus. All the translators seem to have followed the reading *multis partibus;* even Good deserts his master, and gives "still of parts possest." Lachmann, I am glad to see, has reinstated *multis,* thinking the sense of Lambinus better than the nonsense of the old copies, of which Wakefield was so enamoured. Drummond, following Lambinus, renders the passage thus:

> Did Nature, from whose bosom things evolve,
> Ne'er into points their various forms dissolve,
> Vain were her art, and vain her plastic care
> Aught of her mouldering ruins to repair;
> For vain were compounds, as they ne'er comprise
> Due motion, weight, connexion, form, and size,
> Th' essential properties whence all began,
> Or to repair or renovate the plan.

Gifanius conjectured *quæ ullis,* which, notwithstanding the hiatus, is perhaps the true reading.

[2] For which reason, those who think that fire, *&c.*] As nobody is now likely to be misled by Heraclitus, to believe fire the origin of all things, we need bestow little comment upon his doctrine. The reader may consult, if he pleases, the Ninth Book of Diogenes Laertius. As Lucretius alludes to a power to touch the ear agree-

principle of things, and that the universe is maintained from fire alone, seem to have greatly erred from true reason. Of which *philosophers* Heraclitus, as leader, first comes to the battle; *a writer* celebrated for the obscurity of his language, *though* rather among the *vain and* empty, than among the sensible Greeks, who seek for truth. For fools rather admire and delight in all things which they see hid under inversions *and intricacies* of words, and consider those *assertions to be* truths which have power to touch the ear agreeably, and which are disguised with pleasantness of sound.

For how, I ask, could things be so various, if they were produced from fire alone and pure *from mixture?* Since it would be to no purpose that hot fire should be condensed or rarefied, if the parts of fire retained the same nature which the whole of fire still has.[1] For *though* there might be a fiercer heat in the condensed parts, and a more languid *warmth* in the separated and dispersed, there is nothing more than this which you can conceive possible to be effected in *or by* such causes; much less can so vast a variety of things originate from dense and rare fire. *And* this also *is to be borne in mind, that* if they admit vacuity to be mixed with things, fire will then have the capability to be condensed, or left rarefied; but because they see that, in *this admission of vacuity*, there are many things adverse to them *and their doctrines*, and therefore shrink from admitting a pure vacuum *to exist* among substances, they *thus*, while they fear difficulties, lose the true path, nor observe that, on the other hand, *all* vacuity being removed from substances,[2] all things would be condensed,

ably, *bellè tangere aures*, it might be supposed that Heraclitus, though obscure, wrote with some degree of elegance, but I no where find this mentioned.

[1] Fire still has.] Ver. 650. *Habet super ignis.* "Super: etiam, porro; ἔχει πρός." *Wakefield.*

[2] All vacuity being removed from substances.] Ver. 661.

> Nec rursum cernunt exemptum rebus inane,
> Omnia denseri, fierique ex omnibus unum
> Corpus—

Exemptum rebus inane is Wakefield's reading, which he explains, but I wish he had *explained his explanation.* Forbiger adopts the reading tacitly, and forbears from attempting to interpret. If there be any construction to be given to the words, it must be that of the Greek nominative or accusative absolute. Lambinus, and his

and one body would be formed from all, which *body* could eject nothing from itself, as glowing fire emits light and heat, *in such a manner* that you may see it does not consist of condensed parts.

But if they think that fire may by any means be extinguished in *close* condensation, and change its natural consistence, *and if*, indeed, they shall not hesitate to allow that this *may* take place absolutely,[1] then all heat, it is evident, will fall utterly to nothing, and whatever things are *re*-produced, *supposing all to have been produced from fire*, will be made out of nothing. For whatever, being changed, departs from its own limits,[2] this *change in it* is straightway the death *or termination* of that which it was before. Something, therefore, *supposing we admit their doctrine*, must necessarily remain unchanged in that *fire of theirs*, that all things, as you may see, may not utterly fall to nothing,[3] and that the multitude of objects *in the universe* may not have-to-flourish *by* being reproduced from nothing.

And now, therefore, since there are certain most con-

followers, read *exempto rebus inani*, which Lachmann has restored. Compare ver. 743. For *mittere raptim*, a little below, I have given simply *eject*.

[1] *If*, indeed, they shall not hesitate to allow—absolutely.] Ver. 668. *Scilicet ex nullâ facere id si parte reparcent.* "If, forsooth, they do not at all withhold admission from this, but allow that fire may be altogether extinguished, and, losing its own nature, may pass into another, it is all over with the philosophy of Heraclitus." *Wakefield.*

[2] For whatever, being changed, departs from its own limits, &c.] Ver. 671.

> Nam quodcunque suis mutatum finibus exit,
> Continuo hoc mors est illius quod fuit ante.

These lines pleased Lucretius so well that he repeated them three times; i. 792; ii. 753; iii. 518. Evelyn renders them very neatly:

> For whatsoever once its bounds doth pass,
> Straight perishes from what before it was.

Good is flat enough:

> For what once changes, by the change alone
> Subverts immediate its anterior life.

Busby has,

> That which abdicates its nature dies.

I can find no other attempt worth quoting.

[3] That all things, as you may see, may not utterly fall to nothing.] Ver. 674. *Ne tibi res redeant ad nihilum funditus omnes.*

stant elements, which always retain the same nature, by the departure and accession of which, and by their change of order, things alter their nature, and *compound* bodies convert themselves *into a different consistence*, it is easy to understand that these elements of things are not fiery. For it would be to no purpose that some *of these elements* should detach themselves and depart *from one place*, and be assigned to another, and that some should have their order changed, if they all still retained the nature of fire, for whatever *fire* might produce would be in all forms *only* fire. But, as I am of opinion, the *truth* stands thus: There are certain elementary bodies, whose combinations, movements, order, position, shapes, produce fire, and *which*, when their order is changed, change their nature *as a compound;* nor, *as I think*, are they *in themselves* like to fire, or to any other thing, which has the power of emitting particles to our senses, and affecting our touch by its application.

To say, moreover, that all things are fire, and that no real substance exists in the *whole* number of things but fire, (*an assertion* which this *philosopher* makes,) seems to be in the highest degree absurd. Since he himself, *while* arguing from his senses, combats against his senses,[1] and shakes *the credit of* those *perceptions*, on which all things that we believe depend, and by the aid of which that which he names fire is known to him. For he believes that his senses distinguish fire accurately; other things, which are not at all less clear, he does not believe *that they can distinguish; an inconsistency* which seems to me both folly and madness. For to what shall we refer for information? What can be a more certain *criterion* to us than the senses themselves? How, *if we cease to trust them*, can we distinguish what is true, and what is false?

Besides, why should any one rather set aside all *other things*, and desire to admit the substance of fire as the only substance, than deny that fire exists, and still allow existence to all *other substances?*[2] For to advance either *assertion*, seems equal madness.

[1] Combats against his senses.] Ver. 694. *Contra sensus—repugnat.* "He contends against his own senses, which feel other things besides fire." *Lambinus.* To put trust in the senses was also a chief point in the arguments of Reid and his followers. Comp. ver. 425.

[2] Allow existence to all *other substances.*] Ver. 704. *Summam ta-*

Wherefore, those who have thought that FIRE is the primary matter of things, and that the whole universe may originate from fire; and those who have determined that AIR is the first principle[1] for the production of things; those who have imagined that WATER can itself form things of itself; and those who *have supposed* that the EARTH produces all things, and is changed into all substances of things, appear *all* to have wandered extremely far from the truth.

To these add also *those philosophers* who couple the elements of things,[2] uniting Air with Fire, and Earth with Water; and who think that from *these* four things, *namely*, from fire, earth, and air, and moisture, all *bodies* may proceed. Among the chief of whom is Empedocles[3] of Agrigentum, whom, within the triangular coasts of its land, *that* island produced, around which the Ionian deep flowing with vast windings,[4] sprinkles on *it* salt[5] from its blue waves, and the sea, *rolling* rapidly in a narrow channel, divides with its waves the shores of the lands of Æolia, (*i. e. Italy*,)[6] from the

men esse relinquat. "Still resolve to maintain that all other things exist." *Creech.*

[1] Air is the first principle, &c.] Ver. 708, *seq.* Anaximenes of Miletus is said to have thought that air was the origin of things; Thales taught that all sprung from water; and Pherecydes is reported to have said that the earth was the parent of all, but on what authority neither Faber nor I can discover. There were several philosophers, or pseudo-philosophers, of the name of Pherecydes, and who will prove which of them, or whether any of them, held this opinion?

[2] ——who couple the elements of things.] Ver. 713. *Conduplicant primordia rerum.* "As were Xenophanes, who joined earth and water; Parmenides, who united fire and earth; Œnopides of Chius, who mingled fire and air; Hippo of Rhegium, who put together fire and water." *Faber.*

[3] Empedocles.] Ver. 717. "He flourished in the 84th Olympiad; wrote in elegant verse concerning the nature of things; and taught that all things were compounded of fire, air, earth, and water, and resolved themselves again into those four principles. He also said that there were two original moving powers, concord and discord, the one producing union, and the other separation. Plutarch, de Placit. Philosoph. i. 3." *Creech.*

[4] Ionian deep flowing with vast windings.] Ver. 719. *Quam fluitans circum magnis amfractibus æquor.* "Amfractibus: an littoris? an maris?" says Bentley. "Haud dubiè maris," says Wakefield.

[5] Sprinkles on *it* salt.] Ver. 720. *Virus.* "Significare salsedinem et amarorem maris dudum docuit Turneb. xix. 15." *Havercamp.*

[6] Æolia, (*i. e. Italy.*)] Ver. 722. On the margin of a copy belong-

boundaries of it (*viz. of Sicily*). Here is the vast Charybdis, and here the murmurs of Ætna threaten, *indicating that the mountain* is again gathering its wrathful flames, that its violence may vomit forth afresh the fires bursting from its jaws, and once more hurl to the sky its blazing lightnings; which great region, though it seems worthy-of-admiration to the human race on many accounts, and is extolled as deserving-of-being-visited, being rich in valuable productions, and defended with a mighty force of inhabitants, yet appears to have contained in it nothing more excellent than this man, nor *any thing* more sacred, and wonderful, and estimable.[1] The verses, moreover, *which proceeded from* his divine intellect, proclaim and expound his noble discoveries *so eloquently*, that he scarcely seems to have been sprung from a human origin. He, however, and those whom I mentioned above, (*men* distinguishably below *him* by many degrees, and far inferior *to him*,) although, finding out many things excellently and divinely, they gave oracles, as it were, from the inmost-temple of their heart, more sacredly, and with much more true reason, than the Pythia who speaks from the tripod and laurel of Phœbus, yet stumbled[2] in *attempting to expound* the principles of things, and, great as they were, fell there with a heavy downfal. In the first place *they erred*, because they settle that motion may take place, though *all* vacuum be excluded from matter, and *because* they admit *that there exist* soft and subtle bodies, (air, sun, fire, earth, animals, vegetable productions,) and yet mingle no vacuity in their composition. Secondly, *they erred*, because they assert that there is no limit at all to the division of material-particles, and that no bound is set to *their* fracture; nor *do they* at all *allow* that any LEAST

ing to Havercamp was written in Latin: "That part (of Italy) which Jocastes the son of Æolus inhabited, along the strait of Sicily, was called Æolia." What authority there was for this statement, none of the critics discovered till Lachmann, who found that it was taken from Diod. Sic. v. 8; and that in a verse of Callimachus, (apud Bentleium, n. 202,) Rhegium in Italy is called *the city of Jocastus the son of Æolus*. Several copies, however, read *Italiæ*, and this reading Lachmann has adopted.

[1] More sacred, and wonderful, and estimable.] Ver. 731. *Sanctum magis et mirum carumque.* "Carum, τιμιωτερον." *Lambinus.* "Pluris faciendum." *Creech.*

[2] Stumbled.] Ver. 741. *Fecere ruinas.* "Corruerunt, ceciderunt." *Faber.* So also *Lambinus.*

exists in bodies, although we see that there is that *least, namely*, the extreme point of every *body*, which seems to be least to our senses; *so* that you may hence conclude that there exists in bodies a least *possible quantity*, which you *yourself* cannot perceive, *but* which, *nevertheless*, they have *as* an extreme.

To this is also added, that they make the elements of things *to be* soft *bodies*, which *soft bodies* we see to be generated, and altogether of a perishable consistence. But *if the elements of things were soft and perishable*, the whole universe must fall back to nothing,[1] and the abundance of things flourish *by* being re-produced from nothing. *But* how far each of these *suppositions* is distant from the truth, you have *already* had *proof*.

Besides, *these four elements* are in many ways hostile[2] and destructive to one another; for which reason, on coming together, they will either be *naturally* destroyed, or will start away *from one another*, as we see, when a tempest has arisen, the lightnings, and rains, and winds, *not congregating together, but* scattering themselves abroad.

Moreover, if all things are produced from *those* four bodies,[3] and all things are again dissolved into those bodies, how can those *four* be more *justly* called the primary elements of things, than, on the other hand, things *may be called the primary elements* of them, and a backward computation, *as it*

[1] Whole universe must fall back to nothing.] Ver. 757. If the elementary particles of things were soft, they would, *plagis vexata per ævom*, harassed by long agitation and friction, be in time worn out and reduced to nothing.

[2] Besides, *these four elements* are in many ways hostile.] Ver. 760. *Deinde inimica modis multis sunt atque venena Ipsa sibi inter se.* "Are as it were *poisons*, that is, deadly and destructive, as water to fire, *&c.* * * * So Catullus calls a certain Rufus *vitæ venenum.*" *Lambinus.* A little below I have translated *tempestate coactâ*, "a tempest having arisen;" properly, *a tempest being collected.* Lambinus and others read *coörtâ.*

[3] Moreover, if all things are produced from *those* four bodies, *&c.*] Ver. 764. If you say that all things which we see before us, distinct from those four bodies, are formed from those bodies, how will you prove this? why may you not say, with equal plausibility, that those four bodies are formed from whatever things we see distinct from them? How can you tell which were originals?

were, be made? For, *according to this hypothesis*, they are produced alternately, and change their appearance, and their whole substance among themselves, perpetually. But if perchance you imagine that the substances of *fire* and *earth*, and ethereal air and the liquid of water, meet together *in such a way* that by their combination they make no change in their nature, nothing will be produced for you from them, neither animated creature, nor any thing of inanimate substance, as a tree; for each *element* in the conflux of the varying heap will exhibit *only* its own nature, and air will be seen to remain mixed together with earth and with some *portion of* liquid;[1] but primary elements, for the production of things, must exercise a latent and unapparent influence, lest any *element* arise above the rest, which may resist *their action*, and prevent whatsoever is being formed from being able *to attain its* proper *character*.

These philosophers, moreover, take a beginning from heaven and its fires, and make fire first to change itself into the air of the sky; from air *they say that* water is produced, and that earth is generated from water; and *then they say again* that all things return back from earth, first water, afterwards air, then heat; and that these *elements* do not cease to interchange, and to pass from heaven to earth, and from earth to the stars of heaven; which primary elements ought by no means to do. For it is necessary that there should remain something unchangeable, lest all things should be reduced utterly to nothing. Since whatsoever, being changed, goes beyond its own limits, this *change* becomes forthwith the death *or termination* of that which it was before. Wherefore, since *these four bodies* which we have previously mentioned, pass into change,[2] they must necessarily consist of other *elements* which cannot be changed in any way, lest all things should return, as you may suppose, utterly to nothing. But you may rather con-

[1] Some *portion of* liquid.] Ver. 777. *Quodam cum rore.* Lambinus read *ardor cum rore*, heat with liquid, which is infinitely to be preferred.

[2] Since *these four bodies*—pass into change.] Ver. 795. *In commutatum veniunt.* Commutatus, ûs. I believe it is a ἅπαξ λεγόμενον. Lest all things should return, as you may suppose, *&c.* Ne tibi res redeant ad nihilum funditus omnes. See note on ver. 671.

clude *that* certain bodies *exist*, endowed with such a nature, *that* if perchance they have generated fire, the same bodies may, a few *particles* being taken away and a few being added, *and* their order and motion being changed, produce the air of heaven; and that, in like manner, all other *bodies* may be changed into other bodies.

But manifest fact,[1] you *perhaps* observe, evidently shows that all things grow, and are nourished *upwards*, from the earth into the air of heaven; and, unless the season is indulgent with favourable weather, *unless* the groves are shaken with rains and with the moisture of showers,[2] and, *you will add*, *unless* the sun, for his part, cherishes *the productions of nature* and affords heat, corn, trees, and animals would not be able to grow. Doubtless; and unless solid food and soft liquid were to sustain ourselves, our bodies, *for want of them*, being quickly exhausted, all life also would waste away from our nerves and bones; for we are without all question supported and nourished by certain substances, *and* other and other things *are nourished* by certain substances; because, as is evident, many common elements of many things[3] are *mixed* in many bodies in many ways; therefore various things are sustained by various things. And it is often of great conse-

[1] But manifest fact, *&c.*] Ver. 893. In this paragraph he answers an objection which may be made. He supposes the objector to allege that the four elements are necessary to natural production, and *therefore* may be the originals of things. To this he answers, that they are indeed necessary to production, but are not the more on that account the originals of things, than are the food and drink necessary to the nurture and sustenance of man.

[2] Groves are shaken—with the moisture of showers.] Ver. 806. *Imbribus et tabe nimborum arbusta vacillant.* *Tabes*, a word sometimes applied to the melting of snow, as in Lucan, x. 225, cited by Havercamp. See also Livy, xxi. 36, who, in the same chapter, has both *tabes nivis* and *tabida niv.*—Are shaken.] *Vacillant:* totter. See vi. 575, *Vacillant omnia tecta.*

[3] Many common elements of many things, *&c.*] Ver. 814.

———*Multimodis* communia *multis*
Multarum rerum in rebus primordia *multa*
Sunt.

"He manifestly makes it his business to repeat the same word as often as possible." *Preigerus.* Wakefield collects a few instances of a similar repetition of πᾶς, as in Demosth. cont Aristag. i. fin.—*ἅπαντας ἁπασι πάντα τ' ἀγαθα εὔχεσθαι.*

quence with what *other elements*, and in what position, *these* same elements are combined, and what motions they reciprocally cause and suffer. For the same *elements* constitute the heaven, the sea, the earth, the rivers, the sun; the same *elements constitute* corn, woods, animals. But they are actuated *and made effective by* being mixed with other *different* elements and in different ways.

Besides, even in my own verses[1] you see every where many elements common to many words; although you must nevertheless allow that the verses and words differ one from another both in sense and sound; so much can elements effect, even if their order only be changed! But those *elements* which are the principles of things, *being more numerous*, can attract *to themselves* more, *and form more combinations*, from which all the various things *in the universe* may severally be produced.

And now let us also examine the Ὁμοιομέρεια of Anaxagoras,[2] as the Greeks call it; nor does the poverty of our native tongue, indeed, allow us to name it in our own language. But it is easy, however, to explain in words the thing itself, which, as the origin of things, he calls Ὁμοιομέρεια. He thinks, that is to say, that bones are produced from small and minute bones; so likewise that flesh is generated from small and minute *particles of* flesh,[3] and that blood is formed

[1] Besides, even in my own verses, &c.] Ver. 823. If the various selections and combinations of four and twenty letters, can form so many words as are seen in my verses, how infinitely greater a variety of things may seminal atoms form, being so incalculably more numerous!

> Mark, as my easy verse spontaneous flows,
> How common letters various words compose,
> Though verse from verse, and word from word, be found
> To differ widely, both in sense and sound;
> And hence convicted, let thy reason own
> What wondrous change position forms alone.
> Thus common seeds, more num'rous far, unite
> In all the different forms that greet the light. *Drummond.*

[2] Ὁμοιομέρεια of Anaxagoras.] Ver. 830. See Diog. Laert book ii., and Plutarch de Placit. Philos. book i. From ὅμοιος, *like*, and μέρος, *part*. The text sufficiently explains it.

[3] Flesh is generated from small and minute *particles of* flesh.] Ver. 836. *De pauxillis atque minutis Visceribus viscus gigni. Viscus* is rightly interpreted *flesh*: "Nam viscera sunt quicquid inter

from many drops of blood meeting together; *he is of opinion,* moreover, that gold may consist of crumbs of gold, and that earth may be a concrete of little earths; that fire may be from fires, and moisture from moistures. Other things he imagines and supposes *to be produced* in a similar way. Yet he does not allow that there is any where a void in things, or that there is any limit to the division of bodies. Wherefore in both *these* respects he seems to me to err equally with those of whom we have before spoken.

Add *to this,* that he supposes principles *which are* too frail, if, *indeed,* they are principles which are made to be endowed with like nature as the things themselves *that are produced from them,* and equally suffer and decay; nor does any thing withhold them from destruction. For what portion of them will endure under violent oppression, so as to escape dissolution under the very teeth of death? *Will it be* fire, or moisture, or air? which of these? *Or will it be* blood, or bone? Not one *of all those substances,* as I conceive; since every thing universally will be equally perishable as those things which we see manifestly perish from before our eyes, when overcome by any violence. But I call to witness the positions which I have before proved, that neither can things be reduced to nothing, nor again grow up from nothing.

Moreover, since food augments and nourishes the body, we may understand that veins, and blood, and bones, and nerves, consist of heterogeneous parts. Or, if *these philosophers* shall say that all food is of a mixed substance, and contains in itself small elements of nerves and bones, and also veins and particles of blood, it will follow, that both all solid food, and liquid itself, must be thought to consist of *such* heterogeneous matters, *and to be* mixed up of bones, and nerves, and veins, and blood. Besides, if whatever bodies grow from the earth are *previously latent* in the earth, earth must consist of all those heterogeneous matters which spring from earth. Transfer *this reasoning to other objects, and* you may likewise use the same phraseology: in wood, *for instance,* if there is

ossa et cutem est." Servius ad Virg. Æn. vii 253. The text might be rendered, "flesh is generated from small and minute *fleshes.*" Evelyn took it in the sense of *entrails:* "That *entrails* do of little *entrials* breed."

concealed flame, and smoke, and ashes, wood must necessarily consist of the heterogeneous *particles of those substances.*

Here some slight opportunity is left *to this sect of philosophers* for eluding *the arguments of their adversaries; an opportunity* of which Anaxagoras avails himself, *by alleging that* although he thinks all things lie-secretly mixed with all things, yet that that alone appears *on the surface of each*, of which there are most *particles* mixed *in the composition of each*, and placed more *as it were* in readiness and in front; which, however, is far removed from just reasoning. For, *if this hypothesis were correct*, it might-naturally-be-expected also that corn, when it is broken by the overwhelming force of the *mill*-stone,[1] would exhibit *some* token of blood,[2] or something of those *substances* which are nourished in our bodies; (that when we rub stone against stone, blood should flow;) in like manner, also, it would be probable that herbs would send forth drops of a sweet liquid, and of similar taste, such as are *the drops* of milk, that *issue* from the udder of the sheep. And, without doubt, *we might also suppose* that frequently, when clods of earth are broken, *rudiments of the several* kinds of herbs, and corn, and leaves *of trees* would appear scattered about, and *be proved to* lie hid in the earth in

[1] Overwhelming force of the *mill*-stone.] Ver. 880. *Minaci robore saxi.* "*Minaci*, poetically for terrible and formidable, and therefore *great* and *heavy*." *Wakefield.*

[2] Exhibit *some* token of blood.] Ver. 881. *Mittere signum sanguinis.* If blood, according to Anaxagoras, comes from drops of blood, and blood is produced in our bodies by the medium of corn, surely we should, says Lucretius, on crushing corn, sometimes find drops of blood in it. What follows, "that when we rub stone against stone blood should flow," *Quum lapidem in lapidem terimus manare cruorem*, is a verse which Faber, Preiger, Havercamp, and Bentley concur in condemning as spurious, and which, though preserved and defended by Wakefield, even Forbiger himself, following Eichstadt, has ventured to include in brackets. It evidently encumbers the text uselessly. "It seems to have been written in the margin," says Forbiger, "by some one who thought that the words *fruges robore saxi franguntur* required a more accurate explanation, and who had in his mind the passage of Plautus, Asin. i. 1, 16, *num me illuc ducis, ubi lapis lapidem ferit?*" There seems to be much plausibility in this conjecture. Whoever made the verse, the upper and nether mill-stone, which crush the corn between them, are plainly intended Lachmann, to my surprise, preserves the verse.

minute particles; moreover that in wood, when it is broken, ashes, and smoke, and small particles of fire would be found to lie concealed. Of which *occurrences*, since manifest experience shows that none take place, we may understand that substances are not so mixed with substances; but, *if Anaxagoras were right*, the common seeds of many things must lie secretly mixed, in many ways, among other things.

But, you *will* say, it often happens that on the high mountains, the extreme tops of tall trees, when near *to one another*, are rubbed together, the strong south winds compelling them to act thus, until they shine with a flash of flame bursting forth. It is so. And yet the fire is not inherent in the wood, but there are *in it* many seeds of heat, which, when they have become confluent by friction, produce a conflagration in the woods. But if positive flame[1] were hidden in the woods, the fire could not be concealed for any length of time, *but* would openly consume the forests, and burn up the groves.

Do you now see, therefore, (what we remarked a little before,) that it is frequently of great consequence with what *other elements* and in what position the same elements are combined, and what motions they reciprocally impart and receive? And that the same *elements* a little altered[2] in respect to each other, produce fire from wood, *ignes è lignis*, just as also the words themselves consist of elements *or letters* a little changed, when we denote wood and fire, *ligna atque ignes*, by distinct appellations.

Finally, if you think that whatever things you see in the visible world, could not be *conceived to have been* formed without supposing the primary particles of matter *to be* endowed with a nature similar to the things formed from them, your original elements of things, by this hypothesis, *become*

[1] But if positive flame.] Ver. 903. *Quod si facta flamma.* "*Facta flamma* is flame already formed, and collected into a vivid body, its seeds having combined; and, if this flame lay hid in the woods, it might suddenly burst forth, and destroy all surrounding objects with fire." *Wakefield.* So also *Preiger.* See *Thucydides*, ii. 77.

[2] And that the same *elements* a little altered, &c.] Ver. 910. *Atque eadem, paulò inter se mutata creare Ignes è lignis.* "As we denote dissimilar things by different words, *lignum et ignem*, (wood and fire,) by changing a little the letters of the alphabet, some being added, and some taken away." *Lambinus.*

mere absurdities, and fall *to the ground.*[1] *For* the consequence *of such a supposition* will be, that *you must have primary particles which, as the origin of laughter,* are themselves convulsed with tremulous fits of laughter, and *others which, as the originals of weeping,* bedew their own faces and cheeks with salt tears.

And now give me your attention as to what remains; learn and hear more *fully and* plainly. Nor does it escape my knowledge how obscure *these matters* are; but the great hope of praise has struck my heart with her powerful thyrsus, and has at the same time infused into my breast a pleasing love of the Muses, with which inspired I now wander, in vigorous thought, over the trackless regions of the Pierides, trodden before by the foot of no *poet.* It delights me to approach the untasted fountains, and to drink; and it transports me to pluck the fresh flowers, and to obtain a distinguished chaplet for my head from those *groves* whence the Muses have hitherto veiled the temples of no one. In the first place, because I give instruction concerning mighty subjects, and proceed to free the mind from the closely-confining shackles of Religion; in the next place, because I compose such lucid verses concerning *so* obscure a subject; touching every thing with the grace of poetry. Since such *ornament* also seems not *unjustifiable or* without reason. But as physicians, when they attempt to give bitter wormwood to children, first tinge the rim round the cup with the sweet and yellow liquid of

[1] Your original elements——fall *to the ground.*] Ver. 917.

Hac ratione tibi pereunt primordia rerum.
Fiet uti risu tremulo concussa cachinnent,
Et lacrymis salsis humectent ora genasque.

"If any one shall suppose that none of those things which are seen by our eyes, can be produced otherwise than from similar elements, his elements, by this very supposition, will be done away with, for they will be no longer elements, but concrete, and even animated and rational, substances. For, since men are produced from elements, and since men sometimes laugh and sometimes weep, it will follow that the elements of which men themselves consist, have the faculties of laughing and weeping; which will be most absurd." *Lambinus.* Some have thought that there must be verses lost between the first and second of these three lines; and there certainly is an abruptness in the passage which greatly justifies such a supposition.

honey, that the age of childhood, *as yet* unsuspicious,[1] may find its lips deluded, *and* may in the mean time drink up the bitter juice of the wormwood, and, though deceived, may not be injured, but rather, recruited by such a process, may acquire strength: so now I, since this argument seems generally too severe *and forbidding* to those by whom it has not been handled, and *since* the multitude shrink back from it, was desirous to set forth my chain-of-reasoning to thee, *O Memmius*, in sweetly-speaking Pierian verse, and, as it were, to tinge it with the honey of the Muses; if perchance, by such a method, I might detain thy attention upon my strains, until thou lookest through the whole NATURE OF THINGS, and *understandest* with what shape *and beauty* it is adorned.

But since I have taught that atoms of matter, entirely solid, pass-to-and-fro perpetually, unwasted through *all* time; come now, *and* let us unravel whether there be any limit[2] to their aggregate, or not; also, let us look into that which has been found *to be* vacancy, or the room and space in which things severally are done, *and learn* whether the whole is entirely limited, or extends unbounded and unfathomably profound.

All that exists, therefore, *I affirm*,[3] is bounded in no direction; for, *if it were bounded*, it must have some extremity; but it appears that there cannot be an extremity of any thing, unless there be something beyond, which may limit it; so that there may appear *to be some line* farther than which[4] this faculty of our sense (*i. e. our vision*) cannot extend. Now,

[1] Age of childhood, *as yet* unsuspicious.] Ver. 938. *Puerorum ætas improvida.*—Find its lips deluded.] *Ludificetur labrorum tenus*, may be deceived as far as the lips (are concerned).—Though deceived, may not be injured.] *Deceptaque non capiatur.* "Decepti non damnum aliquod patiantur." *Creech.*

[2] Whether there be any limit, &c.] Ver. 950, *seq.* He now proceeds to consider whether matter and space be infinite or not.

[3] All that exists, therefore, *I affirm*, &c.] Ver. 957. He asserts that all that exists, both matter and the space which contains it, is bounded in no direction, (*nullâ regione viarum*,) inasmuch as it is possible to find no extremity of it.

[4] So that there may appear *to be some line* farther than which, &c.] Ver. 960.

——— *ut videatur,*
Quò non longius hæc sensûs natura sequatur.

I have followed Lambinus, who interprets thus: *ut videatur*, that

since it must be confessed that there is nothing beyond the WHOLE, *the whole* has no extremity; nor does it matter at what part of it you stand,[1] *with a view to being distant from its boundary;* inasmuch as, whatever place any one occupies, he leaves the WHOLE just as much boundless in every direction.

Besides, if all space which is, be supposed to be bounded, *and* if any one should go forward as far as possible, *even* to what *he thinks* its extreme limits, and should throw, *or attempt to throw*, a flying dart,[2] whether would you have that *dart*, hurled with vigorous strength, go on *in the direction* in which it may have been propelled, and fly far *forwards*, or do you *rather prefer to* think that something would have power to hinder and stop it? For one of the two *alternatives* you must

there may be seen, namely, some limiting extremity, *quo longiùs*, i. e. *ultra quod*, beyond which, *hæc natura sensûs*, this faculty of vision or sight, *non sequatur*, cannot extend and exert its power. Evelyn translates, in like manner,

> So that one may discern the utmost space,
> Than which no farther it our sense can trace.

I shall not spend time upon Creech's *ex quo videri possit*, except so far as to observe, that he seems to have led astray the author of the old prose version, who gives this wonderful note: "Whatever has an extreme may be seen by what is without or beyond it. Now the Universe, or the All, is not seen by any thing that is beyond it; therefore the Universe has no extreme."

[1] Nor does it matter at what part of it you stand.] Ver. 964. *Nec refert quibus assistas regionibus ejus.* "In quibus partibus consistas." *Creech.* Locke, showing that our idea of space is boundless, says, (Essay, book i. ch. 17, § 4,) "Wherever the mind places itself by any thought, either amongst or remote from all bodies, it can, in this uniform idea of space, no where find any bounds or ends, and so must necessarily conclude it, by the very nature and idea of each part of it, to be actually infinite."

[2] Throw a flying dart.] Ver. 969. *Jaciatque volatile telum.* If you suppose that there is a boundary to the universe, fix on the place where you think it lies, and try to throw a dart beyond it; the dart will either pass beyond it, or will be stopped by some opposing body: if it passes beyond it, you have not fixed the boundary of the universe; if it is stopped by any body, there is something beyond your supposed boundary. *Ultimus*, ver. 969, I have rendered *as far as possible.*—As to *finique locet se*, ver. 977, I have taken Creech's interpretation, who explains the whole passage thus: *Quo minus eam partem, in quam destinatum fuit, attingat, ibique tanquam in termino se sistat.* "Whither it were sent, it could not tend." *Evelyn*

of necessity admit and adopt; of which *alternatives* either cuts off escape from you, and compels you to grant that the WHOLE extends without limit. Since whether there is any thing to stop *the javelin*, and to cause that it may not go on *in the direction* in which it was aimed, and fix itself at *the destined* termination *of its flight*, or whether it is borne onwards beyond *the supposed limit*, it evidently did not begin-its-flight from a boundary *of the* WHOLE. In this manner I will go on *with you*, and wheresoever you shall fix the extreme margin *of space*, I will ask you what then would be the case with the javelin. The case will be, that a limit can no where exist; and that room for the flight *of the javelin* will *still* extend its flight.

Further, if all the space of the entire WHOLE were shut-in and bounded on all sides by certain limits, the quantity of matter *in the universe* would before this time have flowed together to the bottom, by reason of its solid weight; nor could any thing be carried on beneath the canopy of heaven; nor, *indeed*, would there be a heaven at all, or light of the sun; for all matter, from sinking down for an infinite space of time, would be accumulated *at the bottom of the* WHOLE. But now, it is evident, no rest is given to the atoms of the primary-elements; because no part *of the universe* is *completely and* fundamentally lowest, whither *the atoms* might, as it were, flow together, and *where* they might fix their seat; and *therefore* all things are always carried on in all parts in perpetual motion, and the lowest atoms of matter, *or those which we may conceive to be the lowest*, stirred up from the infinite *of space*, are supplied *for the generation of things*.

Moreover, *in things* before our eyes, object seems to bound object; the air sets-a-boundary-to the hills, and the hills to the air; the land limits the sea, and the sea, on the other hand, limits the entire land; but, *as to* the WHOLE, there is nothing beyond *it* that can bound *it*. The nature, therefore, of space, and the extent of the profound *whole*, is *such a vast*, which neither famous rivers,[1] in their course, can run through,

[1] Famous rivers.] Ver. 1002. *Clara flumina*.—"Celebres fluvii," says Creech; and "nobiles fluvii," says the Delphin editor, who adds, renowned "for their rapidity, as the Rhone, Danube, &c." Be it so. Faber advocated *fulmina*, thinking that it suited better with *clara*, and Lachmann has adopted it. *Flumina*, however, is more in accordance with *labentia* in the next verse.

though flowing for an eternal length of time, nor, by passing on, *can* at all cause that less *distance* should remain *for them* to go. To such a degree, on every side, vast abundance of *room* lies open for *all* things, *all* limit being set aside every where *and* in every direction.

Besides, Nature herself prevents the WHOLE OF THINGS from being able to provide bounds for itself, inasmuch as she compels body to be bounded by *that which is* vacuum, and that which is vacuum to be bounded by body; that so, by *this* alternate *bounding of one by the other*, she may render ALL infinite.[1] Else, moreover, if one or other of these did not bound the other by its simple nature, so that *one of them, the vacuum for instance*, should extend unlimited, neither the sea, nor the land, nor the bright temples of heaven,[2] nor the race of mortals, nor the sacred persons of the gods, could subsist for the small space of an hour. For the body of matter, driven abroad from its union, would be borne dispersed through the mighty void, or rather, in such a case, never having been united, would *never* have produced any thing, since, when *originally* scattered, it could not have been brought together.

For certainly neither the primary elements of things disposed themselves severally in their own order, by *their own* counsel *or* sagacious understanding; nor, assuredly, did they agree among themselves what motions each should produce;

[1] Render all infinite.] Ver. 1010. *Infinita omnia reddat.* "Universum reddat interminatum." *Creech.* Perhaps I should rather have translated it, *may render all things infinite*, that is, produce an infinite variety of things by the alternate mixture of matter and vacuum.

So that with one and other
She renders all things infinite together. *Evelyn.*

[2] Bright temples of heaven.] Ver. 1013. *Cœli lucidæ templa.* I have rendered it literally *temples*, but I should perhaps say that it means *spaces, quarters, divisions, regions*, the derivation generally adopted being from τέμνω, τεμῶ, to cut; *temulum, temlum, templum*, "as," says Mr. Valpy, "*Eximo, Exemulum, Exemlum, Exemplum.*" Cicero quotes *cœli cœrula templa* from Ennius. The augurs, when about to take omens, divided the heaven into *templa*, as the astrologers of later days divided it into *houses*. At the beginning of the second Book occurs *templa serena*, in reference to learning and wisdom, which I have rendered *serene heights*. And ver. 1063, I have translated *cœli templa*, "upper parts of heaven."

but because, being many, and changed in many ways, they are for an infinite *space of time* agitated, being acted upon by forces, throughout the WHOLE, *they thus*, by experiencing movements and combinations of every kind, at length settle into such positions, by which means, (*i. e. positions*,)[1] this SUM *of things*, being produced, exists. And *this sum of things*, when it was once thrown into suitable motions, being also maintained *in that state* through many long years, causes that the rivers recruit the greedy sea with large floods of water, and that the earth, cherished by the heat of the sun, renews *its* productions; also that the race of living creatures flourishes undecayed,[2] and that the gliding fires of heaven live. Which *effects atoms* could by no means produce, unless an abundant supply of matter could arise from the infinite *of space*, whence every thing *that is produced* is accustomed to repair in time the parts lost. For as the nature of animals, when deprived of food, wastes *and decays*, losing its substance, so must all things fall away, as soon as matter, turned by any means from its course,[3] has failed to supply itself.

Nor can impacts,[4] *as some may imagine, produced* externally on all sides, keep together the entire WHOLE, *or* whatever *of matter* has been combined *into a whole.* For *though some external impacts* may strike frequently, and *thus may* sustain *here and there* a part, until others succeed, and the *requisite* number *of impacts for securing any particular portion* may be completed; yet at times *the bodies producing the impacts* are compelled to rebound, and at the same moment to give the primary-atoms of things space and time for flight, so that they may be carried away free from the aggregate. It is necessary therefore for *such compression by impact*, that many *atoms* should again and again rise up *into action from the surrounding parts;* and besides, in order that the impacts may be given

[1] By which means, (*i. e. positions*).] Ver. 1027. *Qualibus hæc rebus consistit summa creata.* "In tales dispositurâs, quæ *res* efficiant *illas*, quibus hæc summa creata consistat." *Forbiger.* Wakefield would join *summa rebus*, for *summa rerum*, if *rebus* were genuine; but he admitted Faber's *rerum* into his text.

[2] Flourishes undecayed.] Ver. 1032. *Summâ—floreat.* "So flourishes that their sum remains undiminished." *Wakefield.*

[3] Turned from its course.] Ver. 1040. *Avorsa viai.* Τῆς ὁδοῦ ἀπεστραμμένα. *Wakefield*

[4] Impacts.] Ver. 1041. *Plagæ*, "blows, strokes."

in sufficient numbers, an infinite quantity of matter is requisite on every side.

And in these matters, O Memmius, be very far from believing that which some say, *namely*, that all things tend to the centre[1] of the WHOLE, and that therefore the nature *and substance* of the world stand without any percussions *or pressures* from without, and that the highest parts, *as we call them*, cannot be resolved, *or thrown back* in any direction, because all things strive towards the middle; (if, *indeed*, you DO believe that any thing, *as the earth, according to them*, can rest upon itself *in the middle;* and that those heavy bodies which are on the lower part of the earth, all tend upwards, *or to the centre*, and rest upon the earth, *although* placed in a reverse position *to ourselves*, like the shadows of things which we every day see in the water, *with their lower parts uppermost.*) And in like manner they contend that the animals beneath us range about with their feet upwards, nor can fall back from the earth into the lower parts of heaven, more than our bodies can spontaneously fly off into the upper parts of heaven; that when they see the sun, we behold the stars of night, and that they share the times of heaven, *the hours of light and darkness*, alternately with us, and pass nights corresponding *in time* to *our* days.

But a vain delusion must have devised all these things for foolish *men, mistaken* in that they have embraced a wrong opinion at the commencement. For there can be no middle where vacuum and space are infinite; nor, even if there were a middle, would any thing at all rest there more on that account, than it would stay *there* for any other far different reason. Since all *mere* place, and space which we call empty, must, *whether* through the centre *or* through what is not the centre, yield *equally* a passage to equal weights, in whatsoever direc-

And in these matters——all things tend to the centre.] Ver. 1051. "It was the opinion of the Peripatetics, and of the old Academics, (of whom Plato, however, is perhaps to be excepted,) of the Stoics, and of all who admit only one finite world, that all heavy bodies are borne towards the centre, and all light bodies from the centre to the extremity. But Epicurus, and others who think that there are innumerable worlds, and that the universe is infinite, allow neither extremity nor middle." *Lambinus.* Comp. ver. 1069

tion their motions tend. Nor is there any place, at which when bodies have arrived, they can make a stand *in vacuo*, having lost the force of weight;—nor again, must that which is vacuum, give support beneath any thing, but must proceed to yield *that passage through it* which its nature requires. Things, therefore, cannot be held in combination under such a hypothesis, *namely, that they are* influenced by a tendency to the centre.

This sect of philosophers are in error, moreover, inasmuch as they do not suppose that ALL particles tend to the centre, but *only those* of earth and water, *as* the liquid of the sea and the great floods from the mountains, and those which are contained, as it were, in earthy substances; but set forth, on the other hand, that the subtle air of heaven, and warm fire, are at the same time carried away from the centre, and that, from this cause, the whole sky twinkles around us with stars, and the flame of the sun is fed throughout the blue *expanse* of heaven, since all the heat, fleeing from the centre, collects in those parts: (for the generations of men also, they say, are fed from the earth, *by food rising from the centre;* nor could the extremities of the branches of the trees produce leaves, if the earth did not gradually supply sustenance to each from the ground;) while *they add*, that the heaven above covers all things round about, lest the walls of the world, being dissolved *into their constituent atoms*, should suddenly fly,[1]

[1] Walls of the world——should suddenly fly.] Ver. 1095. So Lucan, Phars. i. 72.

Sic cum compage solutâ
Sæcula tot mundi suprema coegerit hora,
Antiquum repetens iterum Chaos, omnia mistis
Sidera sideribus concurrent: ignea pontum
Astra petent: tellus extendere littora nolet,
Excutietque fretum: fratri contraria Phœbe
Ibit, et obliquum bigas agitare per orbem
Indignata diem poscet sibi; totaque discors
Machina divulsi turbabit fœdera mundi.

So when this knot of nature is dissolved,
And the world's ages in one hour involved
In their old Chaos, seas with skies shall join,
And stars with stars confounded lose their shine:
The earth no longer shall extend its shore
To keep the ocean out; the moon no more

like winged flames, through the vast void, and lest other things should follow in like manner; lest, moreover, the regions of heaven, containing the thunder, should fall from above, and the earth should hastily withdraw itself from under *our* feet, and all *human beings*, dissolving their bodies *into their elements*, should pass away, in the midst of the mingled ruin of things *of earth* and heaven, through the deep INANE, so that, in a moment of time, no relic should exist of them, except desert space and blind atoms.[1] For wheresoever you shall suppose atoms to be first absent from their proper place, that part will be the gate of death to *all* things; by that *part*, the whole crowd of material-elements will rush forth abroad.

These things if you shall understand, led on by *my* humble effort, (for one *proposition* will appear plain from another,) dark night will not prevent your progress, *or hinder you* from seeing clearly into the last *depths* of nature; so *effectually* will truths kindle light for truths.

> Follow the sun; but, scorning her old way,
> Cross him, and claim the guidance of the day.
> The falling world's now jarring frame no peace,
> No league shall hold. *May.*

[1] Blind atoms.] Ver. 1103. *Primordia cæca.* The imperceptible primary elements of all things.

BOOK II.

ARGUMENT.

Having exhorted Memmius to the study of philosophy, ver. 1—60, Lucretius proceeds to treat of the properties of atoms, of which the first is motion, which they owe either to their own weight or the impulse of other atoms, ver. 60—87. Atoms are borne downwards, as being heavy, and when solid atoms come in collision, they must necessarily rebound; some unite with others; those that unite closely, form bodies hard and dense; those that combine more loosely, thin and subtle substances, ver. 88—107. Some do not coalesce, but wander continually through space, impelling and agitating other atoms, ver. 108—140. The swiftness of atoms, ver. 141—166. He attacks those who deny the Epicurean doctrine of atoms, and refuse to admit that this unchangeable order of things is maintained without a divine providence, ver. 167—183. Atoms in their course downwards decline a little from the right line, 184—221. Were they not to decline, nothing would be produced, and there could be no free agency in animals when produced, ver. 222—271. Atoms are still borne on in the same way in which they have moved from all eternity; nor is this assertion to be disputed because all things seem at rest, ver. 272—332. The second remarkable property of atoms is figure; how greatly they differ in this is shown by the vast variety of things produced from them, ver. 332—425. Some atoms are rough and jagged, others smooth and round; some produce bitter and some sweet, some hard and some soft bodies, ver. 426—476. But the figures of atoms are not infinite, though the number of each figure is infinite, ver. 477—580. Shows that compound bodies contain atoms of different figures, and alludes to the natural history of the earth, and the fabulous history of Cybele, ver. 580—728. Atoms have not those qualities which we call sensible qualities, as colour, taste, heat, cold, &c., though they generate bodies having those qualities, ver. 729—1021. The infinite number of atoms, moving through the infinite of space, compose infinite worlds, which are sometimes increased by atoms being added, and sometimes diminished and dissolved by the separation and departure of atoms, ver. 1022—1149; just as, before our eyes, plants and animals grow up, decline, and perish, ver. 1150—1172.

It is sweet, when the winds[1] disturb the waters on the vast deep, to behold from the land the great distress of another; not because it is a joyous pleasure that any one should be-made-to-suffer, but because it is agreeable to see from what evils thou thyself art free. It is also sweet to contemplate the contending-forces of war, arrayed over the plains, without any share of thy own in the danger. But nothing is sweeter than to occupy the well-defended serene heights raised by the learning of the wise,[2] from whence thou mayest look down upon others, and see them straying in all directions, wandering about to find the *best* path of life; contending in intellectual power, vying with each other in nobleness of birth, *and* striving by excessive labour, night and day, to rise to the highest power, and to obtain the government of affairs.

O wretched minds of men! O blind souls! In what darkness of life, and in how great dangers, is this existence, of whatever *duration* it is, passed! May we not see that the nature *of every man* demands[3] nothing more for itself, but that he, from whose body pain is removed and absent, may exercise his mind with a pleasurable feeling, exempt from care and fear?

We are sensible, therefore, that very few things are neces-

[1] It is sweet when the winds, &c.] Ver. 1. "For the idea contained in the first two verses," says Dr. Good, "Lucretius seems in some measure to have been indebted to Isidorus. 'Nothing is more pleasant,' says this writer, 'than to sit at ease in the harbour, and behold the shipwreck of others,' *ἐν λιμένι καθῆσθαι, καὶ τὰ τῶν ἄλλων σκοπεῖν ναυάγια.* Pelus. lib. ii. ep. 240." But as Lucretius died about five hundred years before *Isidorus Pelusiota*, the obligation can hardly be proved to lie on Lucretius' side. Lambinus, with more probability, suggests that Lucretius may have had in his mind these verses of Menander:

Ὡς ἡδὺ τὴν θάλατταν ἄποθεν γῆς ὁρᾶν,
Ὦ μῆτερ, ἐστι, μὴ πλέοντα μηδαμῶς.

"How sweet it is, O mother, to contemplate the sea at a distance from the land, being altogether free from sailing on it!"

[2] Serene heights raised by the learning of the wise.] Ver. 8. *Edita doctrinâ sapientum templa serena. Edita*, says Wakefield, is "raised up, made, produced, built on high, by the learning of philosophers."

[3] Nature *of every man* demands, &c.] Ver. 17. "*Naturam* cujuslibet hominis, nisi ut *ille* fruatur, that you may not hesitate in settling the construction." *Bentley* apud *Wakefield.*

sary to the nature of the body; *those things, namely,* which *are of such a kind that they* may keep off pain, and that they may afford, at the same time, many pleasures; nor does nature herself ever require[1] higher gratification. If there are not, in the houses of men, golden images of youths, holding in their right hands blazing lamps, in order that light may be supplied for the nocturnal feast; and *if* their dwelling neither gleams with silver nor glitters with gold, nor harps cause the arched and gilded roofs to resound;[2] nevertheless, when *they have* stretched *themselves* upon the soft grass, near a stream of water, under the boughs of a high tree, they socially, *though* with no great wealth, gratify their senses with pleasure, especially when the weather smiles upon *them*, and the seasons of the year sprinkle the green grass with flowers. Nor do hot fevers sooner depart from the body, if you are tossed on woven figures and blushing purple, than if you are obliged to lie under a plebeian covering.

For which reason, since neither riches, nor nobility, nor the glory of a kingdom, are of any profit as to our body, we must further suppose that they are of no profit to the mind:[3] unless, perchance, when you see your legions[4] moving with energy over the surface of the plain, stirring up the images of war, *or* when you see your fleet sailing-with-animation, and spreading far abroad *upon the water*, religious-fears, alarmed at these things, flee affrighted from your mind, and the dread of death then leaves your time undisturbed[5] and free from care.

[1] Nor does nature herself ever require.] Ver. 23. *Gratius interdum neque natura ipsa requirit.* "It is to be observed, what we perhaps observe first, that *interdum neque* is put for *nunquam.*" *Faber.*

[2] Nor harps cause the—roofs to resound.] Ver. 28. *Nec citharæ reboant—templa.* "Citharæ seems to be the nominative plural, *reboant* being put for *reboare* faciunt." *Forbiger.* The passages in which these lines of Lucretius have been imitated by Virgil, (Georg. ii. 461,) and other poets, it would require too much space to quote.

[3] We must further suppose that they are of no profit to the mind.] Ver. 39. *Quod superest, animo quoque nil prodesse putandum.* "Credendum etiam non animo prodesse." *Creech.* *Quod superest* for *præterea, etiam.*

[4] Unless, perchance, when you see your legions, *&c.*] Ver. 40. *Si non forte tuas legiones,* &c. "Ironically. Unless, perchance, cares, and religious terrors, and dread of death, are driven from the mind by the aid of legions and troops of cavalry; an effect which will never be produced." *Lambinus.*

[5] Time undisturbed.] Ver. 45. *Vacuum tempus.* I have translated

But if we see that such *suppositions and expectations* are ridiculous and *merely* objects of derision, and *that* in reality the fears and pursuing cares of men dread neither the sound of arms nor cruel weapons, and mingle boldly among kings and rulers of affairs, nor shrink before the brightness *gleaming* from gold, or the shining splendour of a purple garment, why do you doubt but that *to produce these effects* is wholly the office of reason,[1] especially when all our life labours under the darkness *of ignorance?* For as children tremble[2] and fear every thing in thick darkness, so we, in the light, fear sometimes things which are not more to be feared than those which children dread, and imagine about to happen, in the dark. This terror of the mind, therefore, it is not the rays of the sun or the bright arrows of day that must dispel, but the contemplation of nature, and *the exercise of* reason.

Attend now, *therefore, and* I will explain to thee by what motions[3] the generative bodies of matter produce various things, and resolve them when produced; and by what force they are thus compelled to act, and what activity has been communicated to them for passing through the mighty void *of space.* Do thou remember to give thyself *wholly* to my words.

For, assuredly, matter does not *constantly* cohere *as* being closely condensed in itself, since we see every object diminished, and perceive that all things flow away, as it were, through length of time, and that age withdraws them from our

tempus "time," though Lambinus said that if it were genuine it must mean "the head," and, concluding it spurious, substituted *pectus.* Wakefield replaced *tempus*, aptly adducing Ter. Heant. I. i. 38. Sine me, *vacivom tempus* ne quod dem mihi Laboris.

[1] Wholly the office of reason.] Ver. 52. *Omni' sit hæc rationi' potestas.* "For *hæc omnia potest ratio*, or *hæc sola potest ratio.*" *Preigerus.*

[2] For as children tremble, *&c.*] Ver. 54. *Nam veluti pueri trepidant*, &c. See on iii. 88.

[3] I will explain to thee by what motions, *&c.*] Ver. 61. "This is the argument of the second book. He promises that he will *first* explain the motions of atoms, by which things are produced and dissolved; *secondly*, the cause; and *thirdly*, the swiftness, of those motions." *Creech.*—Compelled to act, *&c.*] Ver. 63. "On account of innate motion; for, unless this be supposed, another origin of things must be sought, and recourse must be had to the gods." *Faber.*

eyes; while, nevertheless, the sum *of all* seems to remain undecayed. *And this happens* for this reason, that the particles *of matter* which depart from each object, lessen *the object* from which they depart, and endow with increase *the object or objects* to which they have transferred themselves; and oblige the former to decay, but the latter, on the contrary, to flourish. Nor do they continue *always* in the place *to which they have gone; and* thus the sum of things is perpetually renewed, and *the races of* mortal men subsist by change and *transference* from one to the other. Some nations increase, others are diminished, and, in a short space of time, the tribes of living creatures are changed *by successive generations*, and, like the racers, deliver the torch[1] of life *from hand to hand.*

If you think that the elemental-atoms of things can remain at rest, and *can*, by remaining at rest, generate fresh motions of things, you stray with a wide deviation from true reason. For, since the primary-particles of *all* things wander through the void *of space*, they must necessarily be all carried *forwards* by their own gravity, or, as it may chance, by the force of another *body;* for when, being often moved, they, meeting, have struck against one another, it happens that they suddenly start asunder in different directions; since neither is it to be wondered at *that bodies should do so*, which are of the utmost hardness, and of solid weight; nor, *it is to be observed*, does any thing behind oppose their *motion.*[2] And that you may the more clearly understand that all the atoms of matter are tossed about *and kept in motion*, remember that in the sum of the whole, *or in the entire universe*, there is no lowest *place;* nor has it any *point* where the primary atoms may

[1] Like the racers, deliver the torch, &c.] Ver. 78. *Et quasi cursores vitai lampada tradunt.* "At this time [the feast of Vulcan at Athens] there was a race with torches, called Ἀγὼν λαμπαδοῦχος, in the academy; the manner of which was thus: the antagonists were three young men, one of whom being appointed by lot to take his turn first, took a lighted torch in his hand and began his course; he delivered it to the second, and he in like manner to the third. The victory was his who carried the torch lighted to the race's end." Potter's Antiq. of Greece, book ii. ch. xx. See Pausan. in Att. 33, Plato de Rep. i. 1, and de Legg. vii. 18, Γεννῶντάς τε καὶ ἐκτρέφοντας παῖδας, καθά περ λαμπάδα τὸν βίον παραδίδοντας ἄλλοις ἐξ ἄλλων.

[2] Nor—does any thing behind oppose their *motion.*] Ver. 87. *Nec quicquam a tergo ibus obstet.* "For empty space offers no obstruction." *Faber.*

make a stand; since space is without bound and limit, and shows *of itself*, by many *indications*, that it extends around infinite in every direction. And this has been proved by indisputable argument.[1]

Which *immensity of space* being admitted, there was evidently allowed no rest to the primary atoms *passing* through the void profound; but rather, driven by perpetual and constant motion, part, when struck *by other atoms*, rebound to a great distance, and part also, *when struck, rebounding only* to short distances, are *caught and* intertwined, as it were, by the stroke *of the particles that come in contact with them.* And whatsoever *particles* being brought together in a more close congeries, rebound *only* to small distances, *as* being involved by their own entangling shapes, these form the strong substance of rock, and the rigid consistence of iron, and a few other things of their kind, *and of similar hardness.* Other particles again, which wander through the vast void *of space*, fly, when struck, far off, and rebound away to great distances; these supply to us the thin air and radiant light of the sun.

And many atoms besides wander through the great void, which are rejected by combinations of bodies, and have no where been able, admitted *into union*, to associate their motions *with other atoms.* Of which circumstance, as I conceive,[2] an example and image is, from time to time, moving and present before our eyes. For, behold, whensoever the beams of the sun pour *themselves* through a chink into the dark parts of houses, you will see, in the light of the rays, many minute particles throughout the open space, mingled together in many ways, and, as it were, in perpetual conflict, exhibiting battles and fights, contending in companies, nor allowing any pause *to their strife*, being agitated by frequent concussions and separations; so that you may conjecture, from this *spectacle*, what it is for the primary-particles of things to be perpetually

[1] Proved by indisputable argument.] Ver. 93. *Certâ et ratione probatum est.* See the argument from the throwing of a dart, i. 967.

[2] As I conceive.] Ver. 111. *Uti memoro.* Such appears to be the meaning which we must give to *memoro* in this passage. The commentators are silent, except Creech, who gives *explico.* Good has, "if aright I deem;" and Coutures, "ce me semble." We must suppose it to be used in a middle sense, *I cause myself to recollect*, or *I think.* But some manuscripts, says Pius, have *memorabo*, which we ought perhaps to adopt.

tossed about in the great void. Assuredly a small thing may give an example, and traces *leading* to the knowledge of great things. On this account it is more fitting that you should give your attention to these motes which seem to confuse *one another* in the rays of the sun; because such disorders signify that there secretly-exist *tendencies to* motion also *in the principles of* matter, *though* latent and unapparent *to our senses.* For you will see there, *among those atoms is the sun-beam,* many, struck with imperceptible forces, change their course, and turn back, being repelled sometimes this way, and sometimes that, every where, *and* in all directions. *And* doubtless this errant-motion[1] in all *these atoms* proceeds from the primary elements *of matter;* for the first primordial-atoms of things are moved of themselves; and then those bodies which are of light texture, and are, as it were, nearest to the nature of the primary elements, being urged by secret impulses of those *elements,* are put into motion, and *these latter* themselves, moreover, agitate others which are somewhat larger. Thus motion ascends from the first principles, and spreads forth by degrees, *so as to be apparent* to our senses, and *so* that those *atoms* are moved *before us,* which we can see in the light of the sun; though it is not clearly evident by what impulses they are thus moved.

And now, O Memmius, what activity *and swiftness of motion*[2] has been given to the original atoms of matter, you may learn from what follows. In the first place, when Aurora sprinkles the earth with new light, and the various birds, flitting through the pathless groves, fill *every* part, amid the soft air, with their liquid notes; how suddenly, at such a time, the rising sun, overspreading all things, is wont to clothe *them* with his rays, we observe to be visible and manifest to all. But that heat, and clear light, which the sun sends forth, do not pass through mere empty space; on which account, it is compelled to go more slowly, because it *has* thus *to* force a passage

[1] And doubtless this errant-motion, *&c.*] Ver. 131. *Scilicet hic à principiis est omnibus error; Prima moventur enim per se primordia rerum.* "In this manner all other parts of matter are tossed and wander about, the commencement of motion being derived from the primary particles." *Lambinus.* Observe that *omnibus* is the dative case.

[2] What activity—*of motion, &c.*] Ver. 141. "He now proceeds to prove by an argument or comparison *à minori,* with what activity primordial atoms are endowed." *Lambinus.*

through the flood of air; nor do the particles of heat pass every one singly, but connected and combined together; for which reason they are, at the same time, both retarded by one another, and externally obstructed, so as to be obliged to proceed less rapidly. But the primordial-atoms, which are of pure solidity,[1] when they pass through empty space,[2] and nothing external retards them; and *when, moreover*, they themselves, being one *and uncompounded* in all their parts, are to *that* one place borne onwards, by their own tendency,[3] to which they have begun *to proceed*, must *be thought*, it is evident, to excel in swiftness, and to be carried forwards much more rapidly than the light of the sun, and to run through a much greater region of space[4] in the same time as the beams of the sun traverse the heaven. For neither have they to delay, being retarded by deliberation *how they shall proceed*, nor *have they* to pursue *the neighbouring* atoms one after the other, that they may learn by what method every thing is to be done.

But some ignorant persons, in opposition to these *opinions, think* that the nature of matter cannot, without the will *and providence* of the gods, be ordered so suitably to human plans *and conveniences, as* to change the seasons of the year, and to produce the fruits *of the earth*, and *to effect* also other things in which the directress of life, divine Pleasure, prompts mortals, and herself leads them, to engage; *so* that they may propagate their kind through the allurement *of gratification*, lest the race of men should perish. For whose sake, when they imagine that the gods settled all things, they seem in all respects to have departed far from just reasoning. For though I were ignorant what the primary-elements of things were, yet this I could venture to assert from *a contemplation of* the

[1] Of pure solidity.] Ver. 156. *Solidâ—simplicitate.* "Of solid simplicity." The same expression is used, i. 549, 575, 610.

[2] Pass through empty space.] Ver. 157. *Per inane meant vacuum.* That is, each being surrounded with vacuum; not coming in contact with other atoms.

[3] By their own tendency.] Ver. 159. *Connixa.*

[4] A much greater region of space.] Ver. 162. *Multiplex loci spatium.* The same phrase occurs, iv. 208. Scheller, in his Lexicon, interprets *multiplex*, in this passage, "extensive, large, great." But as Livy, vii. 8, uses *multiplex* comparatively, *multiplex numerus—quàm* —, I think Creech right in explaining *multiplex spatium* by *multo majus spatium.*

nature of heaven itself, and to demonstrate from many other things, that the world was by no means made for us by divine power; although these *opinions* incur reprehension *among the generality of mankind.* Which *matters*, O Memmius, I will make clear to you hereafter; we will now explain what remains *to be said* concerning the motions of *atoms.*

This is now the place, as I think, in *discussing* these subjects, to make plain to you, that no corporeal substance can, of its own *proper* force, be borne and advance upwards; lest the particles of flame should deceive you in this matter. For *though* they are produced upwards, and take increase *upwards, yet* also the smiling corn, and groves, have their growth upwards; though all weights, as far as is in them, are borne downwards. Nor, when fire springs up to the roofs of houses, and consumes the beams and rafters with a swift flame, is it to be thought that it does so without a compelling force; as is the case, *for example*, when blood, sent forth from our body, spouts out, springing up on high, and sprinkling abroad a purple stream. Do you not see, also, with how strong a force the liquid substance of water repels beams and logs of wood? *Do you* not *observe how*, the more we have, *on any occasion*, urged them straight downwards, and have powerfully pressed them *down* with great force and with difficulty, so the more eagerly *the water* casts them back and sends them upwards, so that they rise up and leap forth with a larger portion *of their substance?*[1] And yet we do not doubt, I suppose, that these bodies, as far as is in them, are all borne downwards through empty space. Thus, accordingly, flames must also have the power to rise, when driven up, through the air of heaven, although their own weights, as far as is in them, strive to draw them downwards. Do you not, *moreover*, see that meteors in the night, flying through the height of heaven, draw long tracks of flame in whatever directions nature has given them a passage? *Do you not see shooting* stars fall to the earth? The sun, also, from the highest point of the sky, spreads abroad his heat on

[1] Leap forth with a larger portion *of their substance.*] Ver. 200. *Plus ut parte foras emergant exsiliantque.* "They naturally rose above the water at first with a certain portion of their bulk; but, after being pressed down, they start up above it with a still greater portion." *Wakefield.*

all sides, and covers the fields with his light? The heat of the sun, therefore, also tends *downwards* to the earth. And you observe likewise the lightnings fly through the oblique showers; the fires, bursting from the clouds, rush sometimes in one way, sometimes in another; and the body of flame falls very frequently to the earth.[1]

In reference to these subjects, also, we wish you to understand this; that the particles-of-matter, when they are borne downwards straight through the void *of space*, do for the most part, by their own weights, *at some time, though* at no fixed and determinate time, and *at some points, though* at no fixed and determinate points, turn aside[2] from the *right* line, but only so far as you can call the least *possible* deviation.

But unless *the atoms* were accustomed to decline *from the right line*, they would all fall straight down, through the void profound, like drops of rain *through the air;* nor would there have been any contact produced, or any collision generated among the primary-elements; *and* thus nature would never have produced any thing.

But if, perchance, any one believes that the heavier bodies, as being borne, more swiftly, straight through the void *of space*, might fall from above on the lighter ones, and thus produce concussions, which might give rise to generative movements, he deviates and departs far from just reasoning. For whatsoever bodies fall downwards through the water and the air, they, of necessity, must quicken their motions according to their weights, inasmuch as the *dense* consistence of water, and the subtle substance of the air, cannot equally retard every body, but yield sooner to the heavier *bodies*, being overcome by them. But, on the contrary, a pure vacuum can afford no resistance to any thing, in any place, or at any time, but must constantly allow it the *free passage* which its nature requires. For which reason all bodies, when put into motion,

[1] Falls very frequently to the earth.] Ver. 215. *Cadit in terras—volgò.* For *volgò* Creech gives *passim;* Wakefield seems to take it in the sense of *non raro*, which I prefer.

[2] Particles-of-matter———turn aside.] Ver. 216, *seq.* Had all atoms descended through space in straight lines, like drops in a shower of rain, falling perpendicularly, there could have been no collisions, and no generative motions. Epicurus, therefore, found it necessary to make them, or some of them, deviate from the straight course.

must be equally borne onwards, *though* not of equal weights, through the unresisting void. The heavier atoms will, therefore, never be able to fall from above on the lighter, nor, of themselves, produce concussions which may vary the motions by which nature performs her operations.

For which cause, it must again and again be acknowledged that atoms decline a little *from the straight course, though it need* not *be admitted that they decline* more than the least *possible space;* lest we should seem to imagine oblique motions, and truth should refute that *supposition.* For this we see to be obvious and manifest, that heavy bodies, as far as depends on themselves, cannot, when they fall from above, advance obliquely; *a fact* which you may *yourself* see. But who is there that can see[1] that *atoms* do not at all turn themselves aside, *even in the least,* from the straight direction of their course?

Further, if all motion is connected *and dependent,* and a new *movement* perpetually arises from a former one in a certain order, and, *if* the primary-elements do not produce any commencement of motion by deviating *from the straight line* to break the laws of fate, so that cause may not follow cause in infinite *succession,* whence comes this freedom of will to all animals in the world?[2] whence, I say, is this *liberty of action* wrested from the fates, by means of which we go wheresoever inclination leads each *of us? whence is it that we ourselves* turn aside *and alter* our motions, not at any fixed time, nor

[1] But who is there that can see, &c.] Ver. 249. *Sed nihil omnino rectâ regione viaï declinare, quis est, qui possit cernere, sese?* You must admit this declination from the straight line, says Epicurus, for who can see that there is no such declination? See Lambinus. Many other admissions Epicurus calls upon his disciples to make on similar grounds.

Yet that no bodies in the least are turn'd,
What searching sight hath ever yet discern'd? *Busby.*

[2] Whence comes this freedom of will to all animals in the world?] Ver. 256. *Libera per terras unde hæc animantibus extat—voluntas?* "Whence is our liberty of action? Ask of the atoms themselves: if their motion be invariably direct, there arises from this motion a chain of fate and necessity; if there be collision, (supposing collision to take place with perfectly direct motion,) there arises from it the same necessity. To declension from the right line only, therefore, can liberty of action be attributable." *Creech.* See Cicero *de Fato,* and *de Nat. Deor.* book i.

in any fixed part of space, but just as our mind has prompted us. For doubtless, in such matters, his own will gives a commencement *of action* to every man; and hence motions are diffused through the limbs. Do you not see also, that when the barriers *on the race-course* are set open at a certain instant, yet the eager strength of the horses cannot spring forward so suddenly as the inclination itself desires? For the whole mass of matter throughout the whole body, excited in all the members, must be collected,[1] *and roused simultaneously into action*, that it may second the desire of the mind in connexion with it; *so* that you may see that the commencement of motion is produced from the heart, and that the *tendency to act* proceeds in the first place from the inclination of the mind, and is thence spread onwards through the whole body and its members.

Nor is this similar to the case in which we go forwards, when impelled by a blow, from the great strength and violent compulsion of another *person*, for then it is evident that the whole matter of the entire body moves, and is hurried onwards, against our consent, until the will, *acting* throughout the members, has reined it back. Do you now see, therefore, that although external force drives along many men, (*that is, often drives men along*,) and compels them frequently to go forwards against their will, and to be hurried away headlong, yet that there is something in our breast which can struggle against and oppose it; according to the direction of which, also, the aggregate of matter *within us* is at times obliged to be guided throughout our *several* limbs and members, and when driven forward, is curbed, and sinks down *into rest*? Wherefore you must necessarily confess that the same *is the case* in the seeds *of matter, and* that there is some other cause for motion besides strokes and weight, from which this power is innate in them, since we see that nothing can be produced from nothing. For weight forbids that all effects should be produced by strokes, *and* as if by external force; but *the circumstance* that our mind itself is not influenced *merely* by internal necessity in performing every action, and is not, as if under subjection, compelled *only* to bear and suffer, this *cir-*

[1] Mass of matter——must be collected.] Ver. 266. *Omnis enim totum per corpus materiai Copia conquiri debet.* Some manuscripts have *conciri*.

cumstance the slight declination of the primordial-atoms causes, *though it takes place* neither in any determinate part of space, nor at any determinate time.

Nor was the *general* body of matter ever more condensed[1] together, or, on the other hand, *distributed in parts* at greater intervals, *than it is at present.* For *to that body* neither does any increase ever take place, nor is any diminution made *from it* through decay. For which reason, in whatever motion the atoms of primordial seeds are now, in the same *motion* they were in past time, and hereafter will always be moved in a similar manner; and whatever things have been wont to be produced, will *still* be produced under like circumstances, and will exist, and grow, and acquire strength, as far as has been granted to each by the laws of nature; nor can any influence change the sum of things. For neither is there any *part of space* to which any kind of matter can fly off from the WHOLE, nor, again, is there any *part* from which any new force, having arisen *there*, can burst in upon the WHOLE, and *thus* change the entire order of things and alter its movements.

In these matters, it is not *at all to be regarded as* wonderful, why, when all the primordial-elements of things are in motion, yet the WHOLE *of things* seems to stand in perfect rest, except whatever *individual thing* exhibits motion in its own body.[2] For the entire nature of original-principles lies far *removed* from our senses, *and* beneath *them;* for which cause, when you cannot see *the thing* itself, *its* motions must also hide themselves *from your eyes;* especially when *even many things* that we can see, nevertheless often conceal their motions *from us*, as being separated *from us* by a great distance. For frequently, upon a hill, *we may observe a flock of* woolly sheep spread about, cropping the rich pasture, wheresoever the grass, gemmed with fresh dew, calls and invites

[1] Nor was the *general* body of matter ever more condensed, *&c.*] Ver. 294. *Nec stipata magis fuit unquam, &c.* "That the primary particles cannot be changed, he has already shown; he now asserts that matter, considered generally, was never distributed at less or greater intervals than at present; for not an atom perishes to cause a hiatus in matter and no new atom is generated to increase the density of matter." *Creech.*

[2] Except whatever *individual thing* exhibits motion in its own body.] Ver. 311. *Præterquam si quid proprio dat corpore motus.* "As the air, the water, the heaven, the stars, &c." *Faber.*

each; while the full-fed lambs sport and frisk about with delight: all which *objects*, from a distance, appear to us confused, and *only* a whiteness, as it were, *seems* to rest upon the green hill. Also, when vast legions fill *all* the parts of a plain, stirring up the image of war, the gleam *of arms* then raises itself to the sky, and all the land around glitters with brass, while a sound is excited by the force, beneath the feet of the men, and the *neighbouring* hills, struck with the noise, re-echo the shouts *of the troops* to the stars of heaven; and the cavalry, *at the same time*, swiftly-wheel about, and suddenly charge across the plains in the centre, shaking them with their violent onset; *all these are distinct objects*, and yet there is a certain spot on the high hills, whence, *if you look down*, they seem to rest *on the ground as one body*, and *only a continuous* brightness to settle over the field.

Attend now, *O Memmius*,[1] *and* learn, in the next place, of what nature the primordial-elements of things are, and how very different they are in their forms; how they are varied by manifold shapes. Not that a few *only* are endowed with like form, *for those alike are innumerable*, but because, throughout the whole,[2] all are not similar to all, *but are varied with great differences.* Nor *is this* wonderful; for since the abundance of them is such, that, as I have shown, there is neither any limit nor sum of them, they must not, *and cannot*, assuredly, be all universally endowed with a like figure and like shape to all *others*.[3]

Besides, *consider* the human race, and the mute swarms of fishes swimming *in the sea*, and the abundant herds of cattle and wild beasts, and the various birds, which frequent the

[1] Attend now, *O Memmius, &c.*] Ver. 333. "He first shows that atoms differ in shape; next, that their differences of shape are finite; and then that atoms of each shape are infinite." *Lambinus.*

[2] Throughout the whole.] Ver. 337. *Volgò.*

[3] Like figure and like shape to all *others.*] Ver. 341.

Debent nimirum non omnibus omnia prorsum
Esse pari filo, similique affectu figurâ.

Lambinus interprets *filo* by *texturâ*, and Scheller, in his Lexicon, citing this passage, makes it "*kind, nature.*" But as Lucretius is here speaking merely of the *forms* of atoms, it is evidently to be rendered *outline* or *figure*, as in v. 573:

Forma quoque hinc solis debet filumque videri.

See also v. 587, *atque alibi.*

pleasant places about the waters, upon the banks *of rivers*, fountains, and lakes, and which, flitting through *the trees*, traverse the pathless groves; of which select any one you please, in the several kinds, *for contemplation*, *and* you will still find that they differ from one another in their forms. Nor, *indeed*, could the progeny, by *any* other means, know its mother, or the mother her progeny; whereas we see that *inferior animals*, not less than men, are known to each other. For, on many occasions, a calf, sacrificed at the frankincense-burning altars, falls before the beauteous temples of the gods, pouring forth a warm stream of blood from its breast; but the mother, *meanwhile*, deprived *of her young*, wandering through the green forests, leaves traces imprinted on the ground with her cloven feet, surveying all places with her eyes, if any where she may discern her lost offspring, and *then*, standing still, fills the leafy grove with her complaints; she also frequently goes back to look at the stall, penetrated with regret for her calf; nor are the tender willows, or the grass fresh with dew, or any streams, gliding *level* with the top of their banks, able to soothe her feelings, and drive away her sudden affliction; nor can *any* other forms of calves, over the fertile pastures, divert her attention or lighten her of her care; so *perseveringly* does she require some *shape* that is familiar and known *to her*. Moreover, the tender kids, with their tremulous voices, know, *as they plainly indicate*, their horned dams, and sheep *distinguish* the bleating of the butting lamb; *and* thus, as nature requires, each hastens invariably to its own milky udder.[1]

Lastly, *contemplate* any *sorts of* corn,[2] *and* still you will not find the whole of each in its own kind, *or all the grains of each*, to have such a mutual resemblance, but that some difference will run between their forms. And in like manner we see the *various* sorts of shells paint the lap of the earth, where the sea,

[1] Each hastens invariably, *&c.*] Ver. 370. *Ad sua quisque fere decurrunt ubera lactis.* For "fere," *generally*, or, as I have rendered it, *invariably*, Wakefield reads "feri," *beasts*.

[2] Lastly, *contemplate* any *sorts of* corn, *&c.*] Ver. 371.

> Postremò quodvis frumentum, non tamen omne,
> Quidque suo genere, inter se simile esse videbis.

"With *quodvis frumentum* understand *sumere perge* from ver. 347." *Creech.*

with gentle waves, strews the bibulous sand on the winding shore.[1] Again and again, therefore, *I repeat*, the primordial atoms of things, since they exist in *their own* nature, and are not fashioned to a certain shape by the hand of one *artificer*, must likewise circulate *through the universe* in certain shapes dissimilar one from another.

It is very easy for us, then, by the *clear* guidance of reason, to explain why the flame of lightning passes through the air with much more penetration than our *fire*, which arises from fuel of the earth. For you may *justly* argue that the celestial fire of lightning, *as being more* subtle, consists of smaller atoms, and therefore flies through *diminutive* passages, which this fire of ours, taking its rise from wood, and produced by torches, cannot *enter*.

Besides, light passes through horn, but water is repelled *by it*. Why? unless that the atoms of light are less than those of which the genial liquid of water consists.

Wine, also, we observe to flow as quickly as possible through a strainer, but thick oil, on the contrary, moves *through it* slowly; because, as it appears, *the latter* either consists of larger atoms, or *of such as are* more hooked and involved with one another. And thus it happens, that the individual atoms, not being so quickly detached *from their coherence* with each other, cannot *so easily* pass through the individual pores of any *body*.

To this is added, that the liquids of honey and milk are moved about in the mouth with a pleasant sensation to the tongue; but, on the contrary, the bitter substance of wormwood, and acrid centaury,[2] torment the palate with a disagreeable taste; so that you may easily infer that those things which can affect the senses with pleasure, consist of smooth and round *particles*; but that, on the other hand, whatever things seem bitter and rough, are held united together of *par-*

[1] Strews the bibulous sand, &c.] Ver. 376. *Litoris incurvi bibulam pavit æquor arenam.* "*Pavit*, that is, *sternit*, from the Greek παίω, with digamma inserted." *Wakefield.*

[2] Acrid centaury.] Ver. 400. *Feri Centauri.* Creech considers *ferus*, in this passage, to have much the same meaning as *teter*, (which is immediately before applied to *wormwood*,) or *tristis*, (which is applied to *centaury*, iv. 124,) and ridicules Fayus for thinking that it meant "agrestis," *wild.* "The whole plant is of an exceeding bitter taste." *Culpeper's Eng. Physician.*

icles more hooked; and that, on this account, they are accustomed, as it were, to tear a way to our feelings, and to wound *the skin of* our body at their entrance.

Furthermore, all things which are pleasing to the senses, and *all which are* to the touch unpleasant, are opposed to each other, being formed of *atoms of a* different shape; that you may not, perchance, imagine that the sharp stridor of the creaking saw consists of elements equally smooth with the melodious notes of music, which musicians form upon the strings, awaked, *as it were*, by their swiftly-moving fingers; and that you may not suppose that atoms of like form penetrate the nostrils of men, when they burn offensively-smelling carcasses, and when the stage is freshly sprinkled with Cilician saffron,[1] and the altar, near at hand, exhales Panchæan odours. Nor conceive that pleasing colours, which can feast the eye *with delight*, and those which are, as it were, pungent to the sight, and compel us to shed tears, or *which* seem ugly and hideous with a repulsive look, consist of like seminal-atoms. For every *object*, whatever it be, that soothes the sense of the beholders, is not produced without some smoothness in its elements, but, on the contrary, whatever is of a disagreeable and rough consistence, has not been formed without something offensive in its material-principles.

There are some *atoms*, also, which are neither justly thought to be smooth, nor altogether hooked with bent points, but rather to be *furnished* with small angles slightly jutting out, and which have the power rather to titillate the sense than to wound it; of which kind *of atoms* consist pickle[1] and the taste of elecampane.

Moreover that warm fire and cold frost penetrate the feelings of the body *differently, as being composed of atoms* pointed in different ways, the touch of each is a *sufficient* indication. For the touch, the touch, (O sacred deities of heaven!) is a sense of the body; *and is affected* either when something external insinuates itself through the pores, or when *something* which is generated in the body, hurts or

[1] Sprinkled with Cilician saffron.] Ver. 416. *Croco Cilici perfusa.* "Theatres were sprinkled with saffron mixed with wine, as Pliny relates." *Preigerus. Crocum floresque perambulet Attæ Fabula.* Hor. Ep. ii. 1, 70.

[2] Pickle.] Ver. 430. *Fæcula.* "On *fæcula* and *garum*, read the commentators on Hor. Sat. ii. 8, 7. *Faber.*

delights *it* in issuing forth, as in the genial exercises of Venus; or when the seeds, from striking *against each other*, raise a tumult in the body itself, and, by mutual agitation, confound the sense; as if, for example, you yourself should strike any part of your own body, and make trial *of this sensation.* For which reason forms of substance, which can excite various feelings, must necessarily be far different in their elementary-principles.

Further, those bodies that seem to us hard and dense, must necessarily consist of particles more locked with one another, and be held closely compacted,[1] as it were, by branching *atoms.* Among which kind *of bodies*, adamantine rocks, naturally-adapted to despise blows, stand pre-eminently in the first rank: as well as stout flints, and the strength of hard iron, and brazen *hinges*, which, as they support the *weight of their* gates, make a loud *grating* sound.[2]

Those *bodies*, indeed, which are liquid *and* of a fluid substance, must consist, more *than harder bodies*, of smooth and round *atoms;* (for a draught of poppy-juice[3] is even as yielding, *and as much of a liquid*, as *a draught* of water;) since their several collections-of-particles are not held together rigidly among themselves, and their progress along a descent is voluble *and easy.*

All things, moreover, which you see scatter themselves in a short space of time, as smoke, clouds, and flames, must necessarily, if they do not wholly consist of smooth and round particles, yet not be bound together with complex ones; so that,

[1] Compacted.] Ver. 446. *Compacta.* "Compacted" is not a word in general use, but is found in Hooker, and quoted by Johnson.

[2] Brazen *hinges*, which — make a loud *grating* sound.] Ver. 450. *Æraque, quæ claustris restantia vociferantur. Claustra* here means *gates* or *doors.* "*Restantia* quasi *sustinentia.*" Faber. "*Æra*, brass, that is, *hinges of brass*, which creak with the weight of the gates." *Creech.*

[3] For a draught of poppy juice, &c.] Ver. 453. *Namque papaveris haustus item est* facilis *quod aquarum.* Lambinus thought this verse spurious, and ejected it; nor did any editor offer to restore it till Wakefield. Lachmann retains it, but alters *quod* into *quasi.* Lucretius, if it be genuine, meant to say in it that one body which is fairly fluid *is as much a fluid* as any other that is fairly fluid. Good, who professes to adhere to Wakefield's text, passes the verse in silence. —*Glomeramina*, in the next line, is evidently *collections of particles*, as Lambinus understood it; not *round particles*, as Creech will have it.

being as they are, they may have a pungent effect upon the body,[1] and penetrate rocks, but cannot cohere together; *a power* which we all see to be granted to thorns. You may easily understand, therefore, that they do not consist of *hooked and* complicated, but of acute atoms.

But that you *should* observe the same bodies, which are fluid, to be bitter, as is the liquid of the sea, is by no means to be wondered at by any one. For that which is fluid, consists of smooth and round *particles;* and with *these* smooth and round *particles* are mixed *pungent* particles *causing* pain. Nor yet is it necessary that these atoms should hold themselves together *by being* hooked; *for* you may be certain that though *the particles* are rough, they are yet globose, so that they may flow *among those of the fluid, though* at the same time they *may* hurt the sense. And that you may the more *certainly* believe that rough are mixed with smooth particles, *of both* of which, *for instance*, the mass of the waters of the ocean *consists*, there is, *I may mention*, a method of separating *them* and considering them apart. The same water *of the sea, for example, becomes* sweet,[2] when it is often filtered through the earth, *so* that it may flow, *as you may sometimes see*, into a trench, and *thus* lose its saltness. For it leaves above, *or near the surface of the earth*, the particles of bitter salt, which are rough *and jagged;* so that they more easily inhere in the earth.

Which *point* since I have *now* demonstrated, I shall proceed to join *with it* another proposition, which, depending on this,

[1] May have a pungent effect upon the body.] Ver. 460. *Pungere uti possint corpus.* "As they are easily dissipated, they do not consist of atoms that link together, but as they can stimulate the senses, (as mist and smoke affect the eyes,) and can penetrate hard bodies, (as fire enters iron and stone,) they cannot consist wholly of atoms that are smooth and round." *Creech.*

[2] The same water *of the sea—becomes* sweet, *&c.*] Ver 474. On this passage Good happily refers to Thomson's Autumn, ver. 741.

> Some sages say, that where the numerous wave
> For ever lashes the resounding shore,
> Drill'd through the *sandy stratum*, every way,
> The waters with the *sandy stratum* rise;
> Amid whose *angles* infinitely *strain'd*,
> They joyful leave their *jaggy salts* behind,
> And *clear* and *sweeten* as they soak along.

derives its credit *from* it; that the primary-atoms of things vary in figure, *but only* with a limited number of shapes.[1] If this were not so, some seminal-principles would, moreover, necessarily be of an immense bulk of body. For *this is evident*, because within the same individual minute-frame of any one seminal-principle, the figures *or arrangements* of its parts cannot vary much among themselves. Since, suppose that the primary-principles consist *of a certain definite number* of very small parts; say three, or increase *them, if you please*, by a few more; assuredly when, *after* arranging all those parts, and altering the place of the highest and lowest *parts* of *that* one body, *and changing* the right for the left, you shall have tried in every way what representation of forms each arrangement of the whole of that body offers, if perchance you shall wish still further to vary its forms, you will have to add other parts; *and* from thence will follow, in like manner, that a *third* arrangement will require still more, if you shall wish *by a third arrangement* still to vary its forms. An increase of bulk, therefore, follows upon the variation of shapes; for which reason you cannot believe that seminal-principles differ *from one another* by an infinite *variety of* shapes; lest, *by such a supposition*, you should make some to be of immense bulk; which I have already shown that it is not *possible* to prove.

And if such were the case, if the figures of atoms were infinite, barbaric garments, and shining Melibœan purple,[2] tinged with the dye of shell-fish from Thessaly, as well as the golden brood of peacocks, painted with smiling beauty, would-lose-their-estimation in your eyes, being thrown-into-the-shade by the new beauty of *fresh* objects; the perfume of myrrh and the taste of honey would be despised; and the melodies of

[1] That the primary-atoms of things vary in figure, *but only* with a limited number of shapes.] Ver. 480. *Primordia rerum Finitâ variare figurarum ratione.* Epicurus taught, that the shapes of atoms could not be infinite, as it is impossible to imagine an infinity of figures in a finite body. *Plutarch de Placit. Phil.* i. 3.

[2] Barbaric garments, and shining Melibœan purple, &c.] Ver. 501. "If the shapes of atoms varied to infinity, there could be no certain and determinate extreme qualities of things in nature; for, by new configurations, objects might be so altered, that something better than whatever was best, and worse than whatever was worst, might still arise into being. *Creech*

swans, and the tunes of Phœbus, varied on the chords *of the lyre*, would, in like manner, be silenced, *as being* outdone *by something new;* for, *in every class of things*, some *new* thing might arise more excellent than others *which are now thought the best.*

Or all things might also fall back into a worse state, as we have said *that they might possibly rise* to a better. For, in a retrograde order, one thing might arise, *time after time*, more disagreeable than others *preceding it*, to the nostrils, ears, and eyes, and taste of the palate.

Since this, *however*, is not so, but a certain limit set to things in both directions, *as to what is bad and what is good*, confines the whole, you must of necessity admit that the *particles of* matter also vary *from one another only* by shapes that are finite *in number.*

Lastly, *a distance, so to speak*, has been defined from the heat *of summer*[1] to the freezing cold of winter, and has been measured back *from cold to heat* in like manner. For the whole *year is, or consists of*, heat and cold;[2] and the *moderate* warmths *of spring and autumn* lie between both *the other two seasons*, filling up the whole in succession. *The seasons of spring and autumn, therefore, as* made *and appointed*, are kept-distinct by a limited portion *to each;* since they are marked on each side by two points, *and* shut in on the one hand by heats, and on the other side by rigid frosts.

Since I have *now* proved this, I shall proceed to join with it another *observation*, which, depending on this, derives its credit *from it;* that the primordial-atoms of things, which are formed of a like figure one to the other, are infinite *in number;* for since the diversity of their forms is finite, it necessarily follows that those which are alike are infinite; or *it would appear* that the sum of matter must be finite; which I have proved to be impossible.

[1] Lastly, *a distance* — has been defined from the heat *of summer, &c.*] Ver. 515. He introduces this observation to show that things in nature are limited; that there are extreme bounds beyond which it is not possible to pass, but within which there are many intermediate degrees of variation.

[2] For the whole *year is* — heat and cold.] Ver. 517. *Omnis enim calor ac frigus.* Wakefield understands *annus*, "tamque ridiculum interpretem," says Lachmann, "nostrates venerabundi sequuntur." Lachmann himself reads, from conjecture, *Ambit enim*, &c.

Since I have shown this, I will now (give me your attention) demonstrate in a few sweetly-sounding verses, that the atoms of matter support the WHOLE OF THINGS, from all eternity,[1] by a succession[2] of movements on every side.

For though you see *in any particular region* certain animals to be more rare *than others*, and observe Nature, in those *less rare*, to be more productive,[3] yet in another region and district, and in distant lands, it is possible that there may be many *animals* of that kind, and that the *deficiency of their* numbers *in one place* may be compensated *in another;* just as we see, in the race of quadrupeds, to be especially *the case with* the snake-handed elephants, with many thousands of which India is defended *as* with an ivory rampart, so that it cannot be at all penetrated; so great is the multitude of *those* beasts *in that country, but* of which we see very few specimens *among us.*

But yet, that I may, *if you wish*, grant this also,[4] let there be, *in your imagination*, any single creature you please, *existing* alone with *its own* natural body, *and* to which there may be no *creature* similar in the whole round of the earth; yet, unless the quantity of *the seeds of* matter, from which *that creature* may be formed and generated, shall be infinite *in number*, it will neither be possible for it to be produced, nor moreover, *if it could be produced*, to grow up and be nourished.

For let your eyes conceive (*i. e. imagine that you see*) the generative atoms of any single thing, being limited *in number*, tossed about through the whole *of space;* whence, *I ask*, where, by what force, and by what means, will they, meeting together, unite, amid so vast an ocean of matter, and *so mighty a* confusion *of* dissimilar *particles?* They have, as I think,

[1] From all eternity.] Ver. 531. *Ex infinito.* "Abæterno." *Creech.* "Ab æterno tempore." *Lambinus.*

[2] Succession.] Ver. 532. *Protelo.* See iv. 191.

[3] And observe Nature, in those *less rare*, to be more productive.] Ver. 534. *Fecundamque magis naturam cernis in ollis.* This is Wakefield's reading, and Forbiger's interpretation, if interpretation it can be called; for in truth the *magis* makes the passage sheer nonsense. Lambinus, and all other editors, except Wakefield, Forbiger, and Eichstadt, read *Fecundamque minus*, which Lachmann has reinstated.

[4] But yet, that I may—grant this also.] Ver. 542. *Sed tamen, id quoque uti concedam. This*, namely, which follows. Another argument to prove the infinity of material atoms, and "a more ingenious one," says Faber, "than it may at first appear."

no method of combining *themselves.* But, as when great and numerous shipwrecks have arisen, the vast sea is wont to scatter abroad floating benches, hollow fragments[1] *of vessels*, sail-yards, prows, masts, and oars; *so* that the ornaments of sterns[2] may be seen swimming on all the coasts of the earth, and may give admonition to mortals, to resolve to avoid the treachery, and violence, and deceit of the faithless sea; nor, on any occasion, to be *too* credulous, when the insidious flattery of the calm deep smiles; so if you, *in this case*, shall once settle for yourself that certain primordial atoms are finite *in number, you must then allow that* the different agitations of matter will necessarily toss them about, scattered, *as they will be*, for ever; so that they can at no time, being driven together, unite in combination, or, *if they should unite*, remain in combination, or swell with increase; both of which *effects* manifest proof shows to occur before our eyes, *namely*, that things are produced, and that, when produced, they have the power to increase. It is therefore evident, that, in every class *of beings*, the primordial-elements of things, from which all are supplied, are infinite *in number.*

Nor, therefore, *inasmuch as original-elements are infinite*, can the movements *of things, which are* destructive *to vital existence*, always prevail, or bury *its* safety for ever; *though* neither, on the other hand, can motions productive of generation and increase, always preserve *things which have been* formed. Thus a war of principles, grown up from the infinite space of the past, is carried on with equal strife; the vital *principles* of things prevail sometimes in one place, sometimes in another, and are prevailed over in their turn. The wail which infants raise, when they come forth to view the regions of light, is mixed with funeral *lamentations;* nor has any night followed a day, or any morning *followed* a night, which has not heard groans, the attendants of death and gloomy obsequies, mixed with the weak cries of infants *coming into the world.*

[1] Hollow fragments.] Ver. 554. *Cavernas.* "This word it is easy to understand of any fragment of the interior of a ship." *Wakefield.* Other editors read *guberna.*

[2] Ornaments of sterns.] Ver. 556. *Aplustra.* "In Greek ἄφλαστα. They were ornaments, not on the prow, but on the stern; for the ornaments on the prow were called ἀκροστόλια." *Faber.*

In *considering* these points, it is proper for you, also, to have it impressed, as with a seal, upon your mind, and to keep it *faithfully* intrusted to your memory, that there is nothing, *among all objects* of which the nature is apparent before us, which consists *only* of one kind of elements; nor any thing, which does not consist of mixed seminal-principles. And whatever possesses in itself more numerous powers and energies *than other things*, thus demonstrates that it contains more numerous kinds of primary-particles and various configurations *of them*.

In the first place, the earth has in itself primary atoms, from which springs, rolling forth cool *waters*, incessantly recruit the immense sea; it has *also in itself atoms* from which fires arise. For in many places, the soil of the earth, when set on fire, burns; and the violence of Ætna rages with mighty flames. Moreover, the earth contains *atoms* from which it can raise up rich corn and cheerful groves for the tribes of men; and from which also it can afford waving leaves and abundant pasturage for the brood of wild beasts ranging over the mountains. For which reasons the earth alone is called the great mother of the gods, and mother of beasts, and parent of the human race.

The old *and* learned poets of the Greeks sung that she, in her seat on her chariot, drives two lions yoked together; signifying that the vast earth hangs in the *open* space of the air, and that *one* earth cannot stand upon *another* earth. They added the lions, because any offspring, however wild, ought to be softened, when influenced by the good offices of parents. And they surrounded the top of her head with a mural crown, because *the earth*, fortified in lofty places, sustains cities; distinguished with which decoration the image of the divine mother is borne, spreading terror, through the wide world. Her various nations, according to the ancient practice of their worship, call the Idæan mother, and assign her bands of Phrygians as attendants, because they say that from those parts corn first began to be produced, *and thence was diffused* over the globe of the earth. They assign *to her also* the Galli; because they wish to intimate that those, who have violated the sacred-respect *due* to their mother, and have been found ungrateful to their fathers, are to be thought unworthy to bring living offspring into the realms of light. Distended drums, and hollow cymbals, resound in their hands around *the*

goddess; and their horns threaten with a hoarse noise, while the hollow pipe excites their minds with Phrygian notes. And they carry weapons *outstretched* before them, as signs of violent rage, which may alarm with terror the undutiful minds and impious hearts of the crowd, *struck* with the power of the goddess.

As soon, therefore, as, riding through great cities, she, being dumb, bestows a silent blessing on mortals, they strew the whole course of the road with brass and silver, enriching her with munificent contributions; while they diffuse a shower of roses, overshadowing the mother and her troop of attendants. Here the armed band, whom the Greeks call by the name of Phrygian Curetes, dance round vigorously with ropes,[1] and leap about to their tune, streaming with blood. Shaking the terrible crests on their heads as they nod, they represent the Dictæan Curetes, who are formerly said, in Crete, to have concealed that *famous* infant-cry of Jupiter, when the armed youths, in a swift dance around the child, struck, in tune, their brazen shields with their brazen spears, lest Saturn, having got possession of him, should devour him, and cause an eternal wound in the heart of his mother. *Either* for this reason, *therefore*, armed men accompany the great mother; or *else* because *the priests thus* signify that the goddess admonishes *men* to be willing to defend the land of their country with arms and valour, and to prepare themselves to be a protection and honour to their parents.

These *pageants*, though celebrated as being fitly and excellently contrived, are yet far removed from sound reason. For the whole race of the gods must necessarily, of itself, enjoy its immortal existence in the most profound tranquillity, far removed and separated from our affairs; since, being free from all pain, exempt from all dangers, powerful itself in its own resources, *and* wanting nothing of us, it is neither propitiated

[1] Dance round vigorously with ropes.] Ver. 631. *Inter se fortè catenas Ludunt.* That a rope was used in dancing both by Greeks and Romans is known from Aristoph. Nub. 540; Ter. Adelph. iv. 7, 34; Liv. xxvii. 37, and other authorities. But *catenas*, in this passage, is merely from a conjecture of Turnebus, which Lambinus adopted. Wakefield read *sorte catervis*, which even Forbiger did not venture to retain Lachmann reads *fortè quòd armis.—Fortè* is for *fortiter.*

by services *from the good*, nor affected with anger *against the bad.*

The earth, indeed, is at all times void of sense, but, because it contains the primary elements of many things, it brings forth many productions, in many ways, into the light of the sun. If any one, then, shall resolve to call the sea Neptune, and corn Ceres, and chooses rather to abuse the name of Bacchus, than to utter the proper appellation of wine; let us concede that such a one may pronounce the orb of the earth to be the mother of the gods, provided that it still *be allowed to remain* its real self.

But to return, then, *to the infinite variety of atoms*, the woolly sheep,[1] *we* often *see*, cropping the grass from the same plain, and the warlike brood of horses, and the horned herds, living under the same *part of the* canopy of heaven, and quenching their thirst from the same stream of water, grow up of dissimilar species, retaining the parent nature; and all follow habits according to their kinds; so various is the nature of the matter in each kind of herb; so great *is the variety of particles* in each river. Hence, moreover, *though* the same *parts*, bones, blood, veins, heat, moisture, viscera, and nerves, make up any one you please of all animals, still these, being very different *in themselves*, are formed of primary-particles of *an entirely* different figure.

Further, whatever *bodies*, being set on fire, burn, *show that* there are cherished in their mass, if nothing else, those *various* seminal-atoms, from which they are enabled to throw forth fire and cast up light, and *also* to put sparks in motion, and scatter abroad embers.

Surveying other things with like reasoning, you will accordingly find that they conceal in their consistence the seeds of many things, and contain various conformations *of atoms.*

Again, you observe many objects to which both colour and taste have been assigned, together with smell; especially most of the gifts *which you offer to the gods*, when you feel your mind affected, in a debasing manner,[2] with religion. These

[1] *But to return*, — the woolly sheep, *&c.*] Ver. 660. Since different sorts of animals feed on the same herbs, and drink the same water, the herbs and water, which nourish every kind equally, must contain various sorts of seminal principles.

[2] In a debasing manner.] Ver. 681. *Turpi pacto* This is Wake-

things must therefore consist of various conformations *of atoms;* for scent penetrates where juices *which excite the taste* do not make a way to the corporeal organs; also juices by their particular method, and flavour by its particular method, win their way to the senses; *so* that you may know that they arise from different conformations of atoms. Dissimilar forms *of particles*, therefore, combine in one mass, and things consist of mixed seminal-principles.

Besides, even in my own verses[1] you see every where many elements common to many words; though you must nevertheless necessarily acknowledge that the verses and words consist part of some elements and part of others, *differing* among themselves; not because *only* a few common letters run *through the words*, or *because* no two words, out of all, are alike in *having* any *letter* in common;[2] but because, *taking the words* throughout, all the letters are not common to all. So likewise in other matters, many common *elements*, as they are the primary-principles of many things, may yet exist in dissimilar combinations among themselves; so that the human race, and the fruits *of the earth*, and the rich groves, may justly be considered to consist *each* of distinct *original-particles.*

Nor yet is it to be thought that all particles can be combined in all ways; for, *if this were the case*, you would every where see monsters arise; *you would behold* shapes produced half-man half-beast, and sometimes tall boughs of trees grow out of an animated body; *you would observe* many members of terrestrial animals united to *those of* marine animals, and nature breeding, throughout the all-producing earth, Chimæras breathing flame from horrid mouths. Of which *irregu-*

field's reading; other editions have *parto*. Wakefield also conjectures *facto*.

[1] Besides, even in my own verses, *&c.*] Ver. 688. He uses the same illustration, i. 823.

[2] Or *because* no two words, out of all, are alike in *having* any *letter* in common.] Ver. 693. *Aut nullâ inter se duo sint ex omnibus eâdem.* This is Forbiger's verse, which he calls *paulo impeditiorem*, and thus illustrates, "Non quò duo (verba) ex omnibus nullâ (literâ) inter se eadem sint: i. e. non quasi litera non in duobus verbis diversis occurrere possit." Lambinus reads, aut nulla (verba sc.) inter se duo sint ex omnibus isdem (literis *sc.*). Wakefield for *isdem* substituted *eidem*, versui *sc.* And Lachmann gives, *Aut nulli* (versus *sc.*) *inter se duo sint ex omnibus idem.* Any one of these is better than Forbiger's monster.

larities it is evident that none occur, since we see that all things, being produced from certain seeds, by an unerring generative *nature*, can, as they grow up, preserve their kind *pure and unmixed.*

And it is plain that this must necessarily be the case according to strict method *and laws.* For, from the several sorts of food *that are eaten*, the particles, *suitable* to each *animal*, pass internally into its limbs *and other parts*, and, being *there* combined, produce motions fitted *to that animal.* But, on the other hand, we see that nature throws back upon the earth *those particles which are* unsuitable *to the animal;* and many, *existing in* imperceptible *substances*, escape out of the body, being wrought upon by the impulses *and agitations* of other particles; which *effluent particles* could neither be combined in any part, nor consent, and be animated, *to participate* in the vital movements.

But lest you should think that animals only are bound by these laws, a certain order *and regularity*, *let me observe*, keeps all things distinct. For as, throughout the whole of nature, things dissimilar from one another are individually produced, so it is necessary that each should consist of a different form of elements. Not that only a few *elements* are endowed with like forms, but because all, throughout *all bodies*, are not similar to all.

Since, moreover, seminal particles differ, their intervals, passages, connexions, weights, impulses, collisions, motions, must necessarily differ; *variations* which not only keep distinct the bodies of animals, but give peculiarity to the land and the whole sea, and cause the heaven to differ *in nature* from the earth.

And now attend *further*,[1] and receive into your mind my precepts which I, with pleasing toil, have collected together. Do not, by any chance, imagine that those things which you see before your eyes of a white colour consist, because they are white, of white elemental-atoms; or that those which are black, are produced from black seminal-particles; nor suppose that *any objects*, which are tinged with any other colour whatsoever,

[1] And now attend *further*, &c.] Ver. 729. "He now proceeds to show that the primary-atoms are void of colour, and indeed of all qualities, except shape, size, and weight." *Lambinus.* This is in conformity with the doctrine of Epicurus, as given in the Epistle to Herodotus, in Diog. Laert. book x.

wear that *colour* because their material elements are tinctured with a hue similar to it. For there is no colour at all in the elementary-atoms of matter, either similar to *that of* the bodies *in which they exist*, or dissimilar. Into *the nature of* which elementary atoms, if you think that the mind cannot penetrate, *so as to form an idea of them, because they are without colour*, you wander far away *from the truth.* Since, when those who have been born blind, and who have never seen the light of the sun, yet distinguish substances by the touch, *which to them have seemed* unmarked by colours from their earliest youth, we may understand also that substances *actually* untinctured with colour, may be brought under the comprehension of our intellect. Moreover whatever objects we ourselves touch in thick darkness, we do not perceive to be tinged with any colour *at all.*

Since I prove it to be possible *that atoms may be colourless*, I will now show that it *certainly* is *so.* For every colour is, *or may be*, changed into all colours *whatsoever; but this is a transmutation* which primordial elements must by no means undergo; since it is necessary that there should remain something unchangeable, lest all things should be reduced utterly to nothing. For whatsoever being changed,[1] goes beyond its own limits, this *change* forthwith becomes the death *or termination* of that which it was before. Be cautious, therefore, not to tinge the seeds of things with colours, lest all things for your gratification[2] should be reduced to nothing.

Besides, if no kind of colour has been assigned to primary-particles, and if they are endowed with various forms, by which they generate and vary all kinds of colours; *and* since, moreover, it is of great consequence with what *atoms*, and in what configuration, seminal-particles are severally combined, and what impacts they mutually give and receive; you may at once, with the greatest ease, render a reason why those objects which were a while ago of a black colour, may suddenly become of a marble whiteness; as *when* the sea, after violent winds have stirred up its waters, is changed *in hue, and boils up* into waves white as the whiteness of marble. For you may *readily* say *of any object* which we generally observe *to be* black, that, when its material-atoms have been

[1] For whatsoever being changed, &c.] Ver. 753. **See i. 671.**
[2] For your gratification.] Ver. 756. *Tibi.*

disturbed, and the order of the particles changed, and some taken away and *others* added, it forthwith becomes possible that it may seem of a glowing whiteness.[1] But if the waters of the sea consisted of cærulean atoms, they could by no means become white; for, in whatever way you may disorder *and commingle* those atoms which are cærulean, they can never pass into the colour of marble. But if the atoms which make up the simple and pure colour of the sea, were tinged with various and diverse colours; as frequently *we see*, from different forms and dissimilar figures, is formed a *perfect* square, *consisting* of *only* one figure; it would follow, that, as in the square we see the *other* different figures exist, so in the water of the sea, or in any other simple and pure colour, we should see *those* wholly different and distinct colours, *from which the uniform colour of the sea proceeds.*

Further, the different figures *which make up the square*, by no means hinder or prevent the whole outline[2] of the compound figure from being *or appearing* square; but the various colours of *any* substances *which make up any compound substance*, impede and prohibit *that* whole *compound* substance from possibly being of one *uniform* hue.

Then, moreover, the reason which prompts and induces us sometimes to impute colours to primary-particles, *namely, that coloured substances are compounded of them*, passes for nothing; because white *substances, as the foam of the sea for instance*, are not *necessarily* produced from *other* white *substances;* nor *substances* which are black, from *other* black *substances;* but from *substances of* various *colours; and* because, moreover, white substances will more readily arise, and be produced, from *primary-particles of* no colour than *from primary-particles* of a black *colour*, or from *particles of* any other colour whatsoever that is adverse and opposed *to white.*

Further, since there can be no colours without light, and the primary-particles of things do not come forth into the light,[3] you may *hence* feel certain that they are vested with

[1] Of a glowing whiteness.] Ver. 771. *Candens—et album.*

[2] Whole outline.] Ver. 785. *Omne extra.* "In superficie et ambitu." *Gifanius.*

[3] And the primary-particles of things do not come forth into the light.] Ver. 796. *Neque in lucem existunt primordia rerum.* This is not true, for the primary-particles that are on the surface of things do come forth into the light. "He reasons thus," says Lambinus;

no colours *at all.* For what sort of colour will there possibly exist in thick darkness, *when colour is a thing* which is changed in *and by* mere light, because it appears *different, as it is* struck by direct or oblique light? As the plumage of doves which is situate round the back of the head, and encircles the neck, *appears of a different colour* as it is seen *differently* in the sun. For in one *position it is affected so* as to be red with *the hue of* the bright carbuncle; at another time, in a certain aspect,[1] it is *so* changed that it seems to mix *the colour of* green emeralds with blue. The tail of the peacock, also, when it is covered with a flood of light, changes its colours, *as it is* presented *in different ways,* in like manner. And since *all* these *colours* are produced by a certain effect of the light, it must be considered that *colour* cannot be produced *at all,* without that *light.*

Since, too, the pupil of the eye[2] receives upon itself one kind of impulse when it is said to perceive a white colour, and another again, when it perceives black and other *colours;* and *since* it is of no moment, *as to the feeling,* with what colour those things, which you touch, are distinguished, but rather of what shape *they are* formed, you may conclude that primary-particles have no need of colours, but *have only* to affect the touch differently through the different forms *in which they are combined.*

Besides, since there is no certain kind of colours peculiar[3] to

"Without light colours are not seen; primary-atoms are not seen; therefore primary-atoms are without colour: a syllogism which is unsound, though all its parts are true." Lambinus was too indulgent; he should have disputed the minor. The atoms of things are not seen individually, but they meet the light on surfaces collectively.

[1] In a certain aspect] Ver. 804. *Quodam sensu.* "As the French say, speaking of vision, *en un certain sens;* or, as in ver. 808, *quodam luminis ictu.*" *Faber.*

[2] Since, too, the pupil of the eye, *&c.*] Ver. 810. The sense of the paragraph is this: The eye is affected in one way when it perceives a white colour, and in another way when it perceives a black; but such affections are produced by touch or impact on the eye, (by means, namely, of the images thrown off from the surface of bodies); and to the sense of touch colour is not requisite; therefore primary-atoms, which act on the eye by touch, have no need of colour to produce their effects, and may be considered to be without it.

[3] Besides, since there is no certain kind of colours peculiar, *&c.*] Ver. 817. "The force of the argument is this: Suppose that the primary-atoms of things have colour, those who maintain this opinion will surely not say that certain colours of atoms are peculiar to

certain shapes, and since all shapes of seminal-atoms may exist with any colour whatsoever, why, *if we suppose that seminal-atoms, which are of manifold shapes, have colour*, are not those *creatures* which consist of those *seminal-atoms*, sprinkled over accordingly with all sorts of colours, *each* in its several kind, *whatsoever it may be?* For, *under this supposition*, it might be expected that crows, as they fly, would often shed forth a white colour from white feathers, and that swans, *if springing perchance* from black atoms, would be born black, or, *if from atoms of any other colour, might be* of any other hue whatsoever, uniform or varied.

Moreover, the more any body is divided into small parts, the more you can see its colour by degrees die away and become extinct, as happens when gold is broken into small fragments. *So* purple and scarlet, (by far the brightest of colours,) when they have been divided thread by thread, are utterly deprived *of lustre*. So that you may from this infer, that the small parts of bodies throw off all colour, before they are reduced to their ultimate-atoms.

Further, since you grant that all bodies do not emit sound or smell, it consequently happens that you do not attribute to all *bodies* sounds or smells. So, since we cannot see all *bodies* with our eyes, we may conceive that certain bodies exist, *which we do not see*, as much destitute of colour as others are free from smell, and void of sound; and that an intelligent mind can form a notion of these *colourless bodies*, no less than *of others* which are destitute of other qualities and distinctions.

But that you may not perchance imagine that primary atoms remain void of colour only, they are also, *you may understand*, altogether destitute of heat and cold;[1] and are understood to be barren of sound, and dry of all moisture; nor do they

certain shapes of atoms; for example, that all triangular atoms are black, all quadrangular atoms blue, *&c.*, but will allow that in each shape there must be atoms of different colours; for instance, that among triangular atoms some must be white, some black, some of intermediate colours. Let us suppose, then, that crows consist chiefly of triangular atoms; it would hence follow that crows might be born not black, but white, or green, or blue, or variegated. But this never happens; atoms are therefore without colour." *Lambinus.*

[1] Altogether destitute of heat and cold.] Ver. 844. *Secreta teporis sunt ac frigoris omnino calidique vaporis.* I have not thought it necessary to give more than one word for *heat;* and have made a similar abbreviation in ver. 858.

send out any odour of their own from their substance. Thus when you proceed to compound a sweet ointment of amaracus,[1] and myrrh, and the flower of nard, which breathes nectar to the nostrils, it is, in the first place, proper to seek, as far as is convenient, and *as far as* you may be able to find, the substance of inodorous olive oil, which emits no scent to the nostrils, that it may, as little as possible, by the infection of *any* strong smell of its own, corrupt the odours mixed and digested in its body *as a vehicle for them.*

Finally, therefore, *it* must *be granted that* the primary-atoms of things communicate no odour or sound of their own, to the things to be produced *from them*, since they can emit from themselves none *of these qualities;* nor, in like manner, do they *emit* any savour at all, or cold or heat. Other qualities, *moreover*,[2] which are such that they are *themselves, and in the bodies with which they are connected*, perishable, *as* pliancy from softness, brittleness from decay, hollowness from tenuity of substance, must all, of necessity, be separated from primary-elements, if we wish to lay an everlasting foundation for things, on which their entire security may rest, that the whole universe may not be resolved into nothing.

And now *let me observe that* those *creatures*, whatsoever *they are that* we perceive to have sense, you must necessarily acknowledge to consist wholly of senseless atoms.[3] Nor do manifest *appearances*,[4] which are readily observed, refute this

[1] Sweet ointment of amaracus, *&c.*] Ver. 847. *Sicut amaracini blandum stactæque liquorem Et nardi florem, nectar qui naribus halat. Amaracus* is generally understood to be *sweet-marjoram. Stacta* is *liquid myrrh. Nardus* is what we call *spikenard.* "*Nectar*, the sweetest of odours; metaphorically transferred from the taste to the smell." *Lambinus.*—But the simile of the inodorous oil is but an imperfect illustration of the position that ultimate particles are without smell; for the oil is but the vehicle of the perfumes; ultimate particles are themselves the substance of the perfumes.

[2] Other qualities, *moreover, &c.*] Ver. 859. He signifies that the primary atoms of things must be destitute of all qualities that would render them perishable; they must be hard, solid, and unyielding, as he shows, i. 501, *seq.*, and elsewhere.

[3] *And* now *let me observe*——wholly of senseless atoms.] Ver. 865. He now proceeds to show that living creatures are formed from senseless atoms.

[4] Nor do manifest *appearances*——refute this *position.*] Ver. 867. *Neque id manifesta refutant.* "A common argument of Epicurus, οὐ μάχεται τοῖς φαινομένοις." *Faber.*

position, or *in the least* oppose it, but rather themselves lead *us* by the hand, *as it were*, and compel us to believe that animals, *though possessed of sense*, are generated, as I say, from *atoms* without sense.

For you may observe living worms proceed from foul dung, when the earth, moistened with immoderate showers, has contracted *a kind of* putrescence; and *you may see* all *other* things besides change themselves, similarly, *into other things*. The rivers turn themselves into leaves of trees; and the rich pastures into cattle; the cattle change their substance into *that of* our bodies; and from our bodies the strength of wild beasts, and the frames of birds, are often augmented. Nature, therefore, changes all kinds of food into living bodies, and hence produces all senses of animals in a method not very far different from *that by which* she resolves dry wood into flames, and turns all *combustible bodies* into fire.

Do you now understand, therefore, that it is of great importance in what order the primordial elements of things are severally placed, and with what *other elements* being mingled, they give and receive impulses?

Besides, what is it that acts upon your mind, what moves you, and induces you to express a different opinion, *preventing* you from believing that what is possessed of sense is produced from atoms without sense? *It is*, evidently, *this:* that stones, and wood, and earth,[1] *however* mixed together, are nevertheless unable to produce vital sense.

On these subjects, then, it will be proper for you to remember this principle,[2] that I do not say that what has sense, or that senses *themselves*, are of course[3] produced from all *atoms* in general, whatsoever generate things; but that it is of great importance, in the first place, of what size those *atoms* are which

[1] Stones, and wood, and earth, &c.] Ver. 889. You say that because a mixture of such lifeless substances as stones, wood, &c., cannot produce sensible beings, therefore insensible atoms cannot give rise to sensible beings.

[2] It will be proper for you to remember this principle.] Ver. 891. *Illud in his igitur fœdus meminisse decebit.* I have translated *fœdus* "principle," but the reading ought doubtless to be *Illud in his igitur rebus*, which Lambinus suggested, and which Lachmann has adopted.

[3] Of course.] Ver. 893. *Extemplo.* Forthwith, readily, without difficulty.

are to produce a being of sense, and with what shape they are distinguished; and, *in the next place*, what they are in their movements, arrangements, and positions; of which particulars, we, *from our imperfect perceptions*, see nothing take place in wood and clods; and yet these, when they are as it were rendered putrescent by rain, produce worms, *and for this reason*, because the atoms of matter, being driven from their former arrangements by some new impulse, are combined in such a manner as makes it indispensable for animals to be produced.

Besides, when *philosophers* determine that *a being* which has sense can be produced only from *atoms* endowed with sense, they forthwith, accustomed to adopt opinions from others, make those atoms soft; for all sense is connected with viscera, nerves, veins, *and* whatever soft *substances* we see exist and grow in a mortal body.

But let it be supposed, for a moment, that these *atoms, of which animals consist*, may, *though sensible and soft*, remain eternal. They must then, however, either have sense *as* parts *of animals*,[1] or be thought similar to whole animals. But it cannot be that *as* parts they have sense of themselves, for every *part and member, if separated from the body*, breaks off connexion with the other senses of the *other* members;[2] nor can

[1] Must—either have sense *as* parts *of animals, &c.*] Ver. 908. *Sensum partis habere.* "Talem sensum habebunt, qualem habent partes." *Lambinus.*—Or be thought similar to whole animals.] *Aut similes totis animalibus esse putari.* What *similes* is to agree with, is not very clear; Wakefield, whose reading it is, says *venas et nervos;* but it ought to agree with *primordia*, (comp. ver. 916,) or to refer to the *primordia* in some way. Lambinus and Creech read *similia.* Lachmann has given, *Aut* simili *totis animalibus* (scilicet *sensu*) *esse putari.*

[2] For every *part and member, if separated from the body*, breaks off connexion with the other senses of the *other* members.] Ver. 911. *Namque alios sensus membrorum respuit omnis.* I have translated this line according to the interpretation of Lambinus: omnis "pars à toto separata, aliarum omnium partium suarum sensus rejicit ac respuit." But the reading can hardly be sound. Gifanius proposed *namque alium sensus membrorum res petit omnis*, which Havercamp admitted into the text. Lachmann gives something different: "Quid poeta voluerit," says he, "dubium esse non potest; negat enim membra singula seorsum sentiri posse, quippe quæ ad aliud referantur, hoc est, ad animam: neque hoc difficile est ex verbis leviter corruptis extundere: *namque* aliò *sensus membrorum* respicit *omnis.*" This is not very satisfactory.

the hand, when dissevered from us, nor any part of the body *whatsoever*, retain alone the sense of the whole body. It remains, therefore, that they must resemble whole animals, *so* that they may be animated with vital sense throughout. *But* how, then, will it be possible for them to be called the elements of things, and avoid the paths to death, when they are *of an* animal *nature*, and, *existing themselves* in perishable animals, *are* one and the same *with them?*

Yet *if we allow* that *primordial atoms, though imperishable,* may *nevertheless be endowed with sense*, they will *necessarily in that case* produce nothing but a crowd and multitude of animals; just as men, cattle, and wild beasts, would be unable to produce by combination *severally* among themselves, any thing *but men, cattle, and wild beasts. How then could things inanimate, as trees and metals, be produced? It is only* on this supposition, accordingly,[1] (*viz. that they can generate nothing but sentient beings,*) that *we* should be obliged, as far as we see, *to allow primordial-atoms* to be sentient.

But if, perhaps, *you say that the primordial-atoms, being, as you think, sentient*, lay aside, in combination, their own proper sense, and take another, what need was there, *in that case*, that that should be assigned *to them*, which is *afterwards* taken away? And besides, *to recur to an illustration* to which we had recourse before, inasmuch as we see eggs of animals changed into birds, and worms spring forth when *a kind of* putrescence, from immoderate rains, has affected the ground, we know that *animals having* senses may be produced from *objects* without senses.

But if any one, perchance, shall say that sentient-beings may certainly[2] arise from senseless *atoms, but that this must be effected* by *some* CHANGE *which takes place in those atoms, as* from some *new* BIRTH, before *the sentient being which they constitute* is brought forth *into existence*, it will be sufficient to explain and prove to him, that no BIRTH *ever* takes place, unless from *some* combination previously formed, and that no

[1] *It is only* on this supposition, accordingly, *&c.*] Ver. 923. *Sic itidem, quà sentimus, sentire necesse est.* This verse appeared so inexplicable to Lambinus, that he struck it out; and Lachmann has done the same. The sense which I have given to it, is taken from Wakefield.

[2] Certainly.] Ver. 931. *Duntaxat.* See Scheller's Lexicon. And comp. ii. 122.

CHANGE is effected without a combination of primordial-atoms; for no senses of any *animal* body can exist before the substance itself of the animal is formed; *and* this is evident, inasmuch as *senseless* matter is kept dispersed throughout the air, rivers, earth, and things produced from the earth; nor, though it may have united,[1] has it *so* united *as to engender* in itself those concordant vital motions, by which the all-observing senses *of animals* being generated, *direct and* preserve every living creature.

Besides, a blow *inflicted, if* heavier[2] than nature *can* endure, strikes down any animal at once, and has the effect of confounding all sense of the body and of the mind; for the positions *and connexions* of the atoms are dissolved, and the vital motions are utterly impeded; until *at last* the matter *of the body*, suffering concussion in every member, unlooses from the body the vital ties of the soul, and drives it forth, scattered abroad, through every outlet. For what more can we suppose that an inflicted blow can do, than shake to pieces and dissolve the several *elements that were previously united?*

It also happens, that when a blow is inflicted with less violence, the remains of vital motion often prevail; prevail, *I say, over the effects of it*, and calm the violent disorders *occasioned by* the stroke, and recall every thing again into its proper channel; and *thus* dispel, as it were, the movement of death, *when* asserting-its-power in the body, and revive the senses when almost lost *and overcome.* For under what influence, *if not under this revival of the sentient motions*, can bodies return to life, the mind being re-established,[3] even from the very threshold of dissolution, rather than depart and pass away *to the bourne* to which they had almost accomplished their course?

[1] Nor, though it may have united, *&c.*] Ver. 942. *Nec congressa modo.* "That is, *si modo sit congressa;* si hoc etiam eveniat." *Wakefield.* Lucretius means to say that there is abundance of matter for producing animals dispersed throughout the earth, *&c.*, but which has not yet combined to produce vital motions.

[2] Besides, a blow *inflicted, if* heavier, *&c.*] Ver. 944. The argument is this: Atoms are senseless, and animal sense depends solely on their arrangement; for, if that arrangement be disturbed by a blow, the animal may at once be rendered senseless; and, if it recover from the shock, it may suffer much pain. This argument extends to ver. 972.

[3] The mind being re-established.] Ver. 961. *Conjectâ mente.* "The mind collecting itself into the most vital parts." *Wakefield.*

Furthermore, since pain happens when the principles of matter *in any living body*, disturbed by any force throughout the viscera or the limbs, are agitated in their situations within, *and driven from their proper places;* and *since* an agreeable pleasure succeeds when they return into their places; it is but right to infer, that primordial-atoms can be affected with no pain, and enjoy no pleasure, of themselves; for they, *being primary bodies*, do not consist of those combinations of primary-bodies, the motions of which suffer *pain*, or receive enjoyment of gentle pleasure, from alteration. *Primordial atoms*, therefore, must not be *considered as* endowed with any sense *whatever*.

Besides, if, in order that animals may severally have sense, sense is also to be attributed to their primary-elements, then, forsooth, *the elements* of which the human race is peculiarly constituted, both laugh, shaking *their sides*[1] with tremulous cachinnation, and sprinkle their faces and cheeks with distilling tears; they, *moreover*, can tell much of the mixture of bodies, and inquire, besides, what are their own elements. For, *as* they resemble entire men, *compounded of elements*, they themselves must also be compounded of other elements; *and* these others *must be composed* of others again, so that, *reckoning thus*, you would never make a stop, *but go on to infinity*. For I shall pursue *the argument, and demand* that whatever you shall admit to speak, and laugh, and understand, must consist of other elements exercising the same *powers*. But if we plainly see such *reasoning* to be absurd and insane; and *if a being* can laugh that is compounded of elements which do not laugh, and can understand, and render a reason in intelligible words, *though he be* not *compounded* of intelligent and eloquent seminal-principles, why may not *all* those *creatures* which we observe to be sentient *around us*, be compounded of seminal-atoms wholly destitute of sense?

Finally, we are all sprung from celestial seed; the father of all is the same *ÆTHER*, from which, when the bountiful earth has received the liquid drops of moisture, she, being impregnated, produces the rich crops and the joyous groves, and the race of men; produces all the tribes of beasts; since

[1] Laugh, shaking *their sides, &c*] Ver. 976. See i. 918.

she supplies *them* food, by means of which they all support their bodies, and lead a pleasant life, and propagate offspring; on which account she has justly obtained the name of Mother. That, also, which first arose from the earth, returns back into the earth; and that which was sent down from the regions of the sky, the regions of the sky again receive when carried back *to them;* nor does death so put an end to things as to destroy the atoms of matter, but *only* disunites their combinations, and produces new unions of particles, and is the cause that all things so change their forms, and vary their colours, and receive perception, and in a moment of time yield it up again. So that you may understand it to be of the *greatest* importance with what elements, and in what position *and connexion*, the same primordial-atoms of things are combined, and what impulses they mutually give and receive; (nor suppose that the primary particles of things cannot remain eternal, because we see them fluctuate upon the surface of things, and sometimes *apparently* born and suddenly perish;) as even in these very verses of mine it is of *great* consequence with what letters, and in what order, *other letters* are severally placed; for the same *letters, variously selected and combined*, signify heaven, sea, earth, rivers, sun; the same signify corn, groves, animals; if *the words* are not all, yet by far the greater part are, alike,[1] *at least so far as to have some letter or letters in common;* but the subjects *which they express* are distinguished by the *different* arrangements *of the letters to form the words.* So likewise even in things themselves, when the intervals, passages, connexions, weights, impulses, collisions, movements, order, position, *and* configurations *of the atoms* of matter are interchanged, the things *which are formed from them* must also be changed.

[1] If *the words* are not all, yet by far the greater part are, alike, &c.] Ver. 1017. *Si non omnia sint, at multo maxima pars est Consimilis.* I have translated this according to Wakefield's exposition: "literæ eædem, plures paucioresve, in verbis longè pluribus inveniuntur." But I am not quite sure that this sense can fairly be extracted from it. Creech's interpretation is, "Si non omnes sunt eædem literæ, at multò maxima pars eadem est," which can scarcely be thought intended to throw light on the subject. Lachmann seems to refer *omnia* to *verba*, but gives no further illustration. Other commentators and translators afford no help whatsoever.

Give your attention now, closely,[1] to *the conclusions of* just reasoning, *from what we have previously stated.* For a new doctrine presses earnestly to approach your ear, and a new scene of things to display itself. But neither is any thing so easy, or credible, as that it may not seem rather difficult of belief at first; nor, likewise, is there any thing so great, or any thing so admirable *at first*, at which all *men alike* do not by degrees less and less wonder.

In the first place, *consider* the bright and pure colour of the sky, and that which the stars, wandering in all directions, contain in themselves, and the resplendency, from brilliancy of light, of the moon and the sun; all which *objects*, if they were now first *apparent* to mortal eyes; if they were, *I say, now first* presented *to them* unexpectedly *and* suddenly, what could be mentioned, *which would be* more wonderful than these phenomena, or which the nations *of the world* could less presume, beforehand, to believe would exist? Nothing, as I conceive; so wonderful to men would this scene *of things* have been, for the sake of which no man, you may observe, now deigns to look up to the bright regions of the sky, *every one* being listless from satiety of viewing it. Wherefore forbear, *through* being alarmed at mere novelty, to reject any argument *or opinion* from your mind, but rather weigh it with severe judgment, and, if it seem to you to be just, yield your assent to it; or, if it be false, gird up your loins to oppose *it.* For, since the sum of space, abroad beyond these walls of *our* world, is, *as I have proved*, infinite, my mind proceeds to make inquiry what there exists farther onwards, *in those parts* into which the mind perpetually longs to look, and into which the free effort of thought itself earnestly-desires *to penetrate.*

The first *point which I advance is, that* in every direction around us, and on all sides, above and below, there is no limit through the whole *of space*, as *I myself* have demonstrated, and *as* truth itself spontaneously proclaims, and the nature of

[1] Give your attention now, closely, &c.] Ver. 1023. *Nunc animum nobis adhibe*, &c. Being now about to assert that there are many worlds, and that they are born and perish; a doctrine which many might be slow to believe; he does not think fit to advance it without gravely demanding the attention of the reader.

the profound *itself* makes clear as light. But by no means can it be thought probable, when infinite space lies open in every quarter, and *when* seminal-atoms, of incomputable number and unfathomable sum, driven about by everlasting motion, fly *through the void* in infinite ways, that this one globe of the earth, and *this one* heaven, have been alone produced; *and* that those innumerable particles of matter do nothing beyond *our sphere;* especially when this *world* was made by *merely* natural-causes, and the atoms of things jostling about[1] of their own accord in infinite modes, *often* brought together confusedly, ineffectually, and to no purpose, at length *successfully* coalesced;—*at least* such of them as, thrown together suddenly, became in succession[2] the beginnings of great things, of the earth, the sea, the heaven, and the race of animals. For which reason, it is irresistibly incumbent on you to admit, that there are other combinations of matter in other places, such as is this *world*, which the ether holds in its vast embrace.

Further, when abundance of matter is ready, and space is at hand, and *when* no object or cause *hinders or* delays, things must necessarily be generated[3] and brought into being. And now, if there is such a vast multitude of seminal-atoms as the whole age of *all* living creatures would not suffice to number, and *if* there remains the same force and nature, that can throw together the atoms of things into every part in the same manner as they have been thrown together into this, you must necessarily suppose that there are other orbs of earth in other regions *of space*, and various races of men and generations of beasts.

To this is *to be* added, that in the WHOLE *of our world* there is no one thing which is produced single, and grows up alone and by itself, but that *every thing* is of some class, and that there are many individuals in the same kind. Thus, among animals especially, you will, by your own observation,[4] see this

[1] Jostling about.] Ver. 1059. *Fortè offensando.*

[2] Became in succession.] Ver. 1062. *Fierent semper.* From time to time.

[3] Generated.] Ver. 1069. *Geri.* Properly, *carried on.* Lambinus read *geni.*

[4] By your own observation.] Ver. 1080. *Indice mente.* "By the observation of your mind;—if you attend to the suggestions and admonitions of reason." *Wakefield.*

to be the case as to the brood of wild beasts that range over the mountains; *you will find* the same as to the race of men, male and female;[1] the same, moreover, as to the mute swarms of fishes, and all the kinds of birds. Wherefore it is to be admitted, that, in like manner, the heaven, and the earth, and the sun, the moon, the sea, *and* other things which exist, are not single, but rather of infinite number; since *these follow the same general law*[2] *as other things that arise and decay;* the limit of existence, deeply *and unalterably* fixed, awaits these *parts of nature* as well *as others*, and they consist as much of a natural body, *generated but to die*, as the whole race of animals which abound, in their several kinds, in this state of things.

Which points if, being well understood, you keep *in mind*, and reason from them, *the system of* nature immediately appears, *as a* free *agent*, released from tyrant masters, to do every thing itself of itself spontaneously, without *the help of* the gods. For (O ye sacred bosoms of the deities, that pass in tranquil peace a calm and most serene existence!) who is able to rule the whole of *this* immense *universe?* Who *can* hold in his hand, with power to guide them, the strong reins of this vast *combination of things?* What *god* can, at the same time, turn round all the heavens, and warm all the earth with ethereal fires? Or what *god can* be, at the same moment, present in all places, to produce darkness with clouds, and shake the calm regions of heaven with thunder, *and* then to hurl bolts, and overturn, *as* often *happens*, his own temples; or *afterwards*, retiring to the desert *and uninhabited parts of the earth*, to rage *there*, exercising *that* weapon with which he often misses the guilty, and kills the innocent and undeserving?

And after the time when the world was produced, and the natal day of the sea, and the rise of the earth and the sun, atoms were added from without; seeds, which the vast WHOLE, by agitation, contributed, were conjoined; whence the sea and the earth had the means of increase, and whence the mansion of the sky amplified its vastness, and raised its lofty vaults far above the earth, and the air rose *higher and higher*. For to

[1] Race of men, male and female.] Ver. 1082. *Hominum geminam prolem.* "Utrumque sexum." *Creech.* Al. *genitam prolem.*

[2] Since *these follow the same general law, &c.*] Ver. 1087. In introducing these words, I follow Lambinus's elucidation.

every body *in nature*, from all regions of space, are contributed, by the agitation *of particles*, its own *proper* atoms, and they betake themselves *severally* to their own kinds *of matter; the particles of* moisture *pass* to water; the earth is increased with atoms of earth; and the fiery-principles produce fire, and the aerial air; until, *as such operations proceeded*, nature, the perfectress *and* parent of the world, brought all things to the utmost limit of growth; as happens when that which is received into the vital passages, is no more *in quantity* than that which flows away and passes off. In these circumstances, the age *and growth* of all beings[1] must be at a stand; here nature, by her own influence, restrains *further* increase.

For whatsoever *creatures* you see enlarge themselves to *a full and* lively bulk, and climb, by degrees, the steps to a mature age, receive into themselves more atoms than they emit; whilst the nourishment is readily distributed through the veins, and whilst their bodies are not so widely dilated[2] as to expel many, *that is, a disproportionate number of* particles, and to cause the waste *to be* greater than *the food on which their* life sustains itself. For certainly we must admit that many atoms flow off and pass away from bodies; but, till they have reached the highest point of growth, more ought to accrue to them. From that point, age reduces by degrees their mature force and strength, and melts away *and sinks down* to its decline. Since the larger any creature is, at the time when its increase is stopped, and the greater is its extent of surface, the more atoms it disperses,[3] and emits from itself, in all directions around; nor is the whole of its food readily distributed through its veins; nor is there sufficient *nourishment generated from* the food, in proportion to the effluvia which *the body* discharges,[4] whence as much support as is necessary

[1] In these circumstances, the age *and growth* of all beings, *&c.*] Ver. 1120. *Omnibus his ætas debet consistere rebus.* I do not consider that *omnibus* agrees with *rebus*, but that it is in the dative case, and *his rebus* in the ablative. In four MSS. Lambinus found *Omnibus hic, &c.*, which will give the same sense, though *omnibus* be then regarded as agreeing with *rebus*.

[2] Dilated.] Ver. 1126. *Dispersa.* "Dilatata." *Creech.*

[3] The greater is its extent of surface, the more atoms it disperses.] Ver. 1134. *Quo latior est,——Plura modo dispergit.* "*Quo modo* latior est, *eo modo* plura dispergit." *Wakefield.*

[4] In proportion to the effluvia which *the body* discharges.] Ver.

can arise and be supplied *to it*,[1] and *whence* nature *can* recruit what is requisite. *Bodies*, therefore, naturally decay, as they are wasted by *their substance* passing off, and as all things yield to external attacks; for food at last fails *to support* advanced age; and hostile atoms, striking externally, cease not to exhaust every creature, and subdue *it* with assaults.

So likewise the walls of the great world, being assailed around, shall suffer decay, and *fall into* mouldering ruins. For, *if things are kept in vigour*, *it is* nourishment *that* must recruit them all by renewal; and *it is* nourishment *that must* support, nourishment *that must* sustain all. *But it is* in vain *to expect that this frame of the world will last for ever;* for neither do its veins, *so to speak*, submit *to receive* what is sufficient *for its maintenance*, nor does nature minister *as much aliment* as is needed.

And thus, even now, the age *of the world* is debilitated, and the earth, which produced all races *of creatures*, and gave forth, at a birth, vast forms of wild animals, *now*, being exhausted, scarcely rears a small *and degenerate* offspring. *The earth, I say, which produced all creatures;* for *it was* not, as I conceive, a golden chain from above[2] that let down the tribes of mortals from heaven into the fields; nor did the sea, or the waves that beat the rocks, produce them; but the same earth, which now nourishes them from her *own substance*, generated them *at first*.

Moreover *the earth* herself, of her own accord, first produced for mortals rich crops and joyous vineyards; she herself supplied sweet herbs over the abundant pastures, which now scarcely reach-a-full-growth,[3] *though assisted and* aug-

1137. *Pro quam largos exæstuat æstus. Proquam* is rare. It occurs again iii. 200.

[1] Whence as much support as is necessary, *&c.*] Ver. 1138. *Unde queant tantum suboriri ac suppeditare.* "Queant, *sc.* corpora," says *Wakefield*. Others read *queat*, which is more satisfactory. *Unde*, whence, i. e. from the food.

[2] Golden chain from above.] Ver. 1155. "All creatures, I say, sprung from the earth; for living things were not, as the assertors of a providence affirm, let down from heaven by that golden chain which none but Homer ever saw (Il. ix. 18); nor were they generated from the sea and its waves; but the earth, which now nourishes all things, originally produced all things." *Faber*.

[3] Scarcely reach-a-full-growth.] Ver. 1161. *Vix grandescunt.* This complaint of the decay and degeneracy of things has been common

mented by our toil. We both wear out our oxen and exhaust the strength of our husbandmen, being scarcely supplied *with fruits* from our slowly-yielding fields. To such a degree do the productions of the earth decline, and increase *only* with *human* labour. And in these days the sturdy ploughman, shaking his head, sighs that his great toil has too often fallen out in vain; and, when he compares the present times to the times past, frequently praises the good-fortune of his forefather. The planter of the degenerate vine, also, sad and fatigued, accuses the progress of time, and wearies heaven *with prayers for better seasons;* and often remarks how the ancient race *of men,* full of piety, spent their lives happily[1] within narrow limits, when the portion of land, *cultivated* formerly by each individual, was much less *than at present;* nor does *his untaught mind* understand that all things, exhausted by a long course of time, gradually waste away and pass to their grave.

to poets from Homer downwards. Johnson ridicules it in his Life of Milton.

[1] Spent their lives happily.] Ver. 1172. *Perfacilè—tolerarit—ævom.* "*Beati viverent;* as in Terence, *Quàm vos facile vivitis!* and in Homer Il. vii. 138, ῥέια ζώοντες is applied to the gods." *Faber.*

BOOK III.

ARGUMENT.

Having, in the first two books, treated of the nature and qualities of atoms, Lucretius proceeds, in the four following books, to speak of what is formed from those atoms. He occupies the third book with a description of the nature of the mind and the soul, commencing (ver. 1—13) with a eulogy on Epicurus, who taught that the world was formed, not by any divine power, but from a fortuitous concourse of atoms, and who succeeded, beyond any other philosopher, in relieving the minds of men from the fear of the gods, of death, and of torments after death, ver. 14—40. Many who pretend to be free from this fear, are still disquieted with it; and it is often the source of crimes, ver. 41—93. He then shows that the mind and soul are a part of man, not less than the hand or foot, and not a mere harmony of the parts of the body, as some philosophers taught, ver. 94—106. Reasons on the separate affections of the body and mind, on sleep, on corporeal mutilations, and on the cessation of breathing, ver. 107—137. Uses the terms mind and soul indiscriminately, yet shows that the mind (*animus*) is the chief part, residing in the middle of the breast, the soul (*anima*) being diffused throughout the body, and under the direction of the mind, ver. 138—161. That this mind, and soul, are corporeal, acting on the body by material impact, and consisting of minute atoms, imperceptible to the senses, ver. 161—231. That the substance of the soul and mind is not simple, but composed of four subtle consistences, heat, air, *aura*, and a fourth, to which no name is given, ver. 232—323. That the soul and body cannot be separated without destruction to both; and that the sentient power is not confined to the soul, ver. 324—370. He then refutes the opinion of Democritus, who thought that the soul and body had correspondent parts, ver. 371—396. Shows that the preservation of life depends more on the mind than on the soul, ver. 397—417. Afterwards he demonstrates, by twenty strict arguments, and six additional observations, that the soul perishes with the body, ridiculing, by the way, the Pythagorean transmigration, ver. 418—841. Hence he observes, that, as death is the end of man, nothing is to be feared after it; that it cannot be in itself an evil, because the dead can regret nothing that they have left; and that prolongation of life is not to be desired, as it would furnish nothing but what has been already enjoyed, ver. 842—988. Says that all the Tartarean sufferings which are dreaded after death, are witnessed and endured in life, ver. 989—1036. Consoles mankind, by observing that the best men have died as well as the worst, and exhorts them to contemplate death with reason and calmness, ver. 1037—1088. Concludes with a few more moral reflections to the same purpose, ver. 1089—1107.

O thou, who, from so great darkness, wast first able to raise so effulgent a light, shedding-a-lustre-on the blessings of life, thee, O glory of the Greek nation, I follow, and now place the steps of *my* feet formed upon thy impressed traces,[1] *yet* not *because I am* so eager to rival, as because, from the love *which I feel for thee*, I desire to imitate thee. For why should the swallow contend with swans? Or what, *that is all* similar, can kids, with trembling limbs, and the strong vigour of the horse, perform in the race? Thou, O father, art the discoverer of truths;[2] thou suppliest to us paternal precepts, and from thy writings, O illustrious *teacher*, as bees gather[3] from all *blossoms* in the flowery glades, so we feed upon thy golden words; golden, *I say, and* most worthy of perpetual existence.

For as soon as thy system *of philosophy* began to proclaim aloud the NATURE OF THINGS, as it arose in *thy* divine intellect,[4] the terrors of the mind disperse; the walls of the world open; I see things conducted throughout the mighty void *of space;* the *calm* divinity of the gods[5] appears, and *their* tranquil abodes, which neither winds disturb, nor clouds sprinkle with showers, nor snow falling white, congealed with sharp frost, inconveniences;[6] but the pure air *is* always cloudless, and smiles with widely effulgent light.[7] *To them*, moreover, nature supplies all things, nor does any cause, at any time, diminish the tranquillity of their minds. But the regions of

[1] Steps of my feet formed upon thy impressed traces.] Ver. 4. *Ficta pedum pono pressis vestigia signis.* "Ponoque vestigia pedum (i. e. sola pedum) ficta (i. e. se fingentia,) effigiata, deformata, in tuis signis, vel signis tuorum pedum." *Wakefield.*

[2] Discoverer of truths.] Ver. 9. *Rerum inventor.* "*Philosophiæ auctor*, founder of true philosophy." *Creech.*

[3] As bees gather.] Ver. 11. *Limant.* This is adopted by Wakefield in the sense of *decerpunt, delibant*, "cull, gather." Others, with Lachmann, read *libant.*

[4] *Thy* divine intellect.] Ver. 15. *Divinâ mente coortam.* This is the reading of Wakefield, referring to the mind of Epicurus; Lambinus and his followers read *haud divinâ mente*, that is, not from the mind of the gods.

[5] *Calm* divinity of the gods.] See i. 646—651.

[6] Inconveniences.] Ver. 21. *Violat.* I hesitated what word to choose for this, and took one of the mildest that I could find. Creech has *invades*, but this is no proper sense of the word.

[7] Effulgent light.] Ver. 22. *Diffuso lumine.* See i. 9.

Acheron, on the other hand, are no where apparent; nor does the *dark* earth hinder but that all things, whatever are done beneath our feet throughout the void, may be *seen and* contemplated. Under the influence of these wonders *disclosed* there, a certain divine pleasure and dread penetrates me; *amazed* that nature, thus manifestly displayed by thy power, has been in all parts revealed to us.

And since I have shown [1] of what kind the primordial atoms of all things are, and how, differing in *their* various forms, and actuated by motion from all eternity, they fly *through the void of space* of their own accord;[2] and *since I have also demonstrated* by what means all individual things may be produced from them; the nature of the MIND and of the SOUL now seems, next to these subjects, *proper* to be illustrated in my verses; and there must be driven utterly from *our minds* [3] that fear of Acheron, which disturbs human life from its very foundation, suffusing all things with the blackness of death, nor allows any pleasure to be pure and uncontaminated.

For as to what men often say, that diseases, and a life of infamy, are more to be feared than Tartarus, *the successor* of death; and that they know the consistence of the soul to be *of the nature of* blood, or even of breath, (if their inclination happen to lead them to such *an opinion*,) and have no need at all of our reasoning *and instruction;* you may perceive, for the reasons that follow,[4] that all *these observations* are thrown out more for the sake of praise *and vain-glory*, than because the belief itself is settled *in their minds;* for the *very* same *boasters*, exiled from their country, and driven far from the sight of men, disgraced with foul guilt, and afflicted with all calamities, yet still continue to live; and whithersoever, notwithstanding, the unhappy men have come, they offer sacrifices to the dead, *as if their souls were still in existence*, and immolate black cattle, and send oblations to the *Dii Manes*,

[1] And since I have shown, &c.] Ver. 31. "Having, in the first and second books, stated many particulars concerning atoms, and their figures and motions, he now proposes an exact discussion concerning the soul, with a view to deliver men from the fear of death and of punishment after death." *Creech.*

[2] Of their own accord.] Ver 33. i. e. By their own weight.

[3] Driven utterly from *our minds.*] Ver. 37. *Præceps agundus.* "Elliptically for *in præceps*, as if *in præcipitium.*" *Wakefield.*

[4] For the reasons that follow.] Ver. 46. *Hinc.*

and, in their calamitous circumstances, apply their minds much more zealously to religion *than before*. For which reason, it is more satisfactory to contemplate a person, *in order to judge of his character*, in doubtful dangers, and to learn what he is in adverse circumstances; since words of truth are then at last elicited from the bottom of the heart, and the mask is taken away, *while* the reality *of the man* remains.

Furthermore, avarice, and the blind desire of honours, which drive men to transgress the bounds of right, and sometimes, *as* the accomplices and ministers of crimes, to strive night and day, with excessive labour, to rise to the height of power; these *passions, I say, which are the* wounds *and plagues* of life, are nourished for the most part by the dread of death. For, in general, infamous contempt, and sharp poverty, seem removed from a pleasing and secure *state of* life, and seem to dwell, as it were, before the very gates of destruction. From which cause, while men, *not submitting to die to avoid those evils, but* restrained by a false terror *of death and its consequences*, wish that they may escape far, and remove themselves to a distance, *from disgrace and want*, they increase their property with civil bloodshed, and greedily double their riches, heaping slaughter on slaughter; they cruelly rejoice at the sad end of a brother, and hate and dread the tables[1] of their relations.

From the same terror,[2] in like manner, envy often wastes *men* away; *they grieve* that he who walks *before them* in shining honour, should be powerful, should be looked upon *with respect;* they complain that they themselves are tossed about in obscurity and dishonour.[3] Some pine to death for the sake of statues and a name, and often to such a degree from the fear of death, does the hatred of life, and of seeing the light, affect men, that with a despairing mind, they commit self-murder;[4] forgetting that this fear is the source of all

[1] Dread the tables, *&c.*] Ver. 73. Through fear of poison.

[2] From the same terror.] Ver. 74. If men were not afraid of suicide, they might escape from the sight of all that disquiets them.

[3] Tossed about in obscurity and dishonour.] Ver. 77. *In tenebris volvi cænoque.* In darkness and in dirt.

[4] To such a degree,——commit self-murder.] Ver. 79, *seq.* "This strange and inconsistent effect of fear is well commented upon in the following verses of Butler; who tells us that it will often

Do things not contrary alone
To th' force of nature, but its own;

cares;[1] that this violates modesty, that this bursts the bonds of friendship; *this*, in fine, prompts *mortals* to overthrow piety *and virtue*. For men have often betrayed their country, and their dear parents, *while* seeking to avoid the regions of Acheron. Since as children tremble,[2] and fear every thing in thick darkness, so we, in the light, fear sometimes things which are not more to be feared than those which children dread, and imagine about to happen, in the dark. This terror of the mind, therefore, it is not the rays of the sun, or the bright arrows of day, that must dispel, but the contemplation of nature, and *the exercise of* reason.

First, *then*, I say, that the mind,[3] which we often call the intellect, in which is placed the conduct and government of life, is not less an *integral* part of man *himself*, than the hand, and foot, and eyes, are portions of the whole animal.

Although, indeed, a great number of philosophers have

* * * * *

For men as resolute appear
With too much as too little fear;
And when they're out of hopes of flying,
Will run away from death by dying." *Good.*

Men, rather than live perpetually in fear of the worst, dare the worst.

[1] Forgetting that this fear is the source, *&c.*] Ver. 82. *Obliti fontem curarum hunc esse timorem.* Forgetful that if they were but to free themselves from this unreasonable dread of death, and of sufferings after death, they need not, under any circumstances, be harassed with cares, or driven to crime, to preserve a miserable existence, but might either terminate their lives at once, without apprehension of consequences, or might endure their afflictions with resolute submission, satisfied that there would be nothing worse to come beyond what they would undergo in this world, and that they might securely withdraw from their troubles whenever they might think fit

[2] Since, as children tremble, *&c.*] Ver. 88. These lines are taken from ii. 55, *seq.*, and Lucretius was so well pleased with them that they are repeated again, vi. 35. "Men fear death," says Bacon, (Essay ii.) "as children fear to go into the dark; and as that natural fear in children is increased with tales, so is the other."

[3] First, *then*, I say that the mind, *&c.*] Ver. 94. *Primum animum dico, mentem quem sæpe vocamus, In quo consilium vitæ regimenque locatum est, Esse hominis partem.* Being now about to speak of the mind and soul, his first assertion is, that the mind (animus), which we often call the intellect (mens), and which is the director of life, is not less *a part of us* than the hand or foot.

thought that the sense of the mind is not placed in *any* certain part, but is a kind of vital habit *or resulting power* of the body, (called by the Greeks a harmony,)[1] which causes us to live *endowed* with a *mental* sense, though the mind is *situate* in no *particular* part *of us*. As, frequently, when good health is said to be *a sensation* of the body, and yet this *health* is *itself* no portion of *the person* that enjoys health; so those *philosophers* place the sense of the mind in no particular part *of the person*. In which *hypothesis* they seem to wander far astray. For frequently the body, which is openly seen, *is* diseased *and dejected*, while we nevertheless feel pleasure[2] in the other part, which is hid *within us;* and on the other hand again, it often happens that the reverse is the case, when he who is wretched in mind is well in his whole body; just in the same way as if, when the foot of a sick man is pained, his head, in the mean time, happen to be in no pain *at all*. Besides, when the limbs are resigned to gentle sleep, and the body, heavy *with slumber*, lies stretched without sense, there is yet *something* else within us, which, at that *very* time, is agitated in diverse ways, and admits into itself all the affections of joy, and *all* the empty solicitudes of the heart.

And now, also, that you may be *further* convinced that the soul is *actually one* among our members,[3] and is not wont to hold *or occupy* the body as a harmony,[4] it happens in the first

[1] Harmony.] Ver. 101. Many however have thought otherwise. and some have considered the mind to be a mere effect of the arrangement and combination of the particles of the body; among whom was Aristoxenus, who, says Cicero, (Tusc. i. 10, 18,) being both a philosopher and musician, imagined that the mind was merely a harmony resulting from the nature and shape of the body, as tunes spring from the consenting motions of musical instruments. The same opinion is noticed and confuted by Aristotle *de Anima*, i. 4. Allusion is also made to it in Plato's Phædo.

[2] Feel pleasure.] Ver. 108. *Lætamur*. A little below (ver. 110) I have rendered *Quom miser ex animo lætatur corpore toto*, "is well in his whole body;" for we can hardly say that *he who is wretched in mind rejoices or feels pleasure in his whole body*.

[3] *One* among our members.] Ver. 118. *In membris*. That is, says Lambinus, *in numero membrorum*, in the number of our members.

[4] To hold—the body as a harmony.] Ver. 119. *Neque harmoniam corpus retinere solere*. The reader of the Latin may be in doubt whether the construction is *harmoniam retinere corpus*, or *corpus retinere harmoniam*. Wakefield and the Delphin editor put it in the

place, *you may observe*, that, *even* when much of the body is taken away, the life nevertheless often remains in the members *that are left*;[1] and, again, the same life, when a few atoms of the heat *of the body* have dispersed, and air has been sent forth through the mouth, immediately quits the veins, and relinquishes possession of the bones: *so* that you may conclude from hence, that all particles *of the body* have not equal parts *and powers*, but that those which are the constituent-atoms of air and quickening heat,[2] exercise more influence *than others* that life may dwell *and be retained* in the members. The vital heat, therefore, and air, which desert our limbs when dying, are existent in the body itself, *and form a part of it.*

For which reason, since the nature of the mind and the soul is *thus* found *to exist* as a part of man, give back *to these philosophers* their name of *harmony, whether* brought down by musicians from lofty Helicon, or whether they themselves took it from any other quarter,[3] and transferred it to that object, which then wanted a distinctive appellation. Whatsoever is the case, let them have it to themselves; listen thou to the rest of my arguments.

I now affirm that the mind and soul[4] are held united with

way in which I have given it; the other commentators say nothing on the point.

[1] The life—often remains in the members *that are left.*] Ver. 121. By *life* (vita) he intends *the soul* (anima), which, he says, cannot be a harmony resulting from the whole body, because it remains entire, and undiminished in vigour, when the body is no longer whole. It will be seen below, (ver. 232, *seq.*,) that he makes the *anima*, (or rather the *anima* and *animus* conjoined,) which he does not make distinct from the vital power, to consist of *heat, a certain aura, air*, and *a fourth substance*, to which he gives no name, but which is the origin of sense and motion in the human frame.

[2] Quickening heat.] Ver. 127. *Calidique vaporis.* Warm or warming heat. Compare ver. 216.

[3] From any other quarter.] Ver. 134. *Aliunde porro.* From any other place else. *Porro* is equivalent to *else* or *besides.*

[4] I now affirm that the mind and soul, *&c.*] Ver. 137. He now asserts that the *mind* and *soul* form one substance, but that the mind (*animus*, which is also called *consilium* and *mens*, reason and intellect) remains seated in the breast, and influences the soul, which is diffused throughout the body, and which is often itself affected with pleasure or pain, when the soul connected with it is wholly unmoved.

one another, and form of themselves one nature *or substance;* but that *that which* is as it were the head, and *which* rules in the whole body, is the reason, *the thinking or intellectual part* which we call mind and understanding; and this remains seated in the middle portion of the breast. For here dread and terror throb; around these parts joys soothe; here therefore is the understanding and mind. The other part of the soul, *or vital power*, distributed through the whole body, obeys, and is moved according to the will and impulse of the mind. And *this rational or intellectual part* thinks of itself alone, and rejoices for itself, *at times* when nothing *of the kind* moves either *the rest of* the soul or the body. And as when the head or the eye, when pain affects it, is troubled in us, *and as part of us, but* we are not afflicted throughout the whole body, so the mind is sometimes grieved itself *alone,* and is *sometimes* excited with joy, when the other part of the soul, *diffused* through the limbs and joints, is stimulated by no new sensation. But when the mind is more *than ordinarily* shaken by violent terror, we see the whole soul, throughout the *several* members, sympathize with it, and perspirations and paleness, in consequence, arise over the whole body, and the tongue rendered powerless and the voice die away; *while we find* the eyes darkened, the ears ringing, *and* the limbs sinking underneath.

Furthermore, we often see men faint *altogether* from terror of mind; *so* that any one may easily understand from this, that with the mind is united the soul, which, when it has been acted upon by the power of the mind, then influences and affects the body.

This same *course of* reasoning teaches us that the nature *or substance* of the mind and soul is corporeal;[1] for when *this nature or substance* is seen to impel the limbs, to rouse the body from sleep, and to change the countenance, and to guide and turn about the whole man;—of which *effects* we see that none can be produced without touch, and that touch, moreover, *can*not *take place* without body;—must we not admit that the mind and soul are of a corporeal nature?

[1] The same—reasoning—mind and soul corporeal.] Ver. 162. As the mind and soul act upon the body, they must be corporeal, for nothing but body can act upon body; as he asserts i. 305: *Tangere enim, et tangi, nisi corpus, nulla potest res*

Besides, you see that the mind suffers with the body,[1] and sympathizes for us with the body. *Thus*, if the violent force of a dart, driven into *the body*, the bones and nerves being divided, does not hurt the life *itself*, yet there follows a languor, and a kind of agreeable inclination-to-sink to the ground,[2] and *when we are* on the ground, a perturbation[3] *and giddiness* which is produced in the mind, and sometimes, as it were, an irresolute desire to rise. It therefore necessarily follows that the nature of the mind is corporeal, since it is made to suffer by corporeal weapons and violence.

I shall now proceed to give you a demonstration, in *plain* words, of what substance this mind is, and of what it consists.

In the first place, I say that it is extremely subtle,[4] and is formed of very minute atoms. *And* you may, *if you please*, give me your attention, in order that you may understand clearly that this is so, from the following arguments.[5] Nothing is seen to be done in so swift a way,[6] as if the mind pro-

[1] Suffers with the body.] Ver. 169. *Fungi cum corpore.* Facere et fungi sine corpore nulla potest res, i. 444.

[2] Agreeable inclination-to-sink-to the ground.] Ver. 173. *Terræque petitus suavis.* Properly *a seeking of the ground.* He uses a soft kind of expression, says Wakefield, because he does not speak of such injury as takes away all power, but only of such as stupifies the senses; an effect similar to that which is produced by wine.

[3] Perturbation.] Ver. 174. *Æstus.* "Conturbatio." *Lambinus.* "Fluctuatio." *Wakefield.*

[4] In the first place———extremely subtle.] Ver. 180. He now proceeds to show that the soul and mind consist of subtle and fine particles, agreeably to the opinion of Epicurus, who calls the soul λεπτομερὲς σῶμα, and says that it consists of atoms not very dissimilar to those of fire.

[5] From the following arguments.] Ver. 182. *Hinc.*

[6] Nothing is seen to be done in so swift a way, &c.] Ver. 183.

> Nil adeo fieri celeri ratione videtur,
> Quam si mens fieri proponit, et inchoat ipsa.

This seems to be but a cumbrous and circuitous way of expressing that *nothing is so active as thought.* Good has it,

> nought so swiftly speeds
> As what the mind determines and completes.

Creech contents himself with

> no action is so swiftly done
> As what the mind begins.

Busby is very spirited, to show how Lucretius ought to have expressed himself:

poses it to be done, and itself undertakes *it.* The mind, therefore, impels itself more speedily than any thing, *among all those* of which the nature is manifestly seen before our eyes. But that which is so exceedingly active, must consist of atoms exquisitely round and exquisitely minute; that they may be moved, when acted on, by a slight impulse. For water is moved, and flows, with so trifling a force *as we see act upon it,* inasmuch as it is composed of voluble and small particles. But the substance of honey, on the other hand, is more dense, and its fluid sluggish, and its movement more tardy;[1] for its whole mass of material-particles clings more closely together; because, as is evident, it consists of atoms neither so smooth, nor so small and round. For a gentle and light breeze can make a tall heap of poppy-seed waste away, from the top *to the bottom,* before your *eyes;* but, on the contrary, can have no *such effect* upon a heap of stones and darts; particles, therefore, according as they are most diminutive[2] and most smooth, have also *the greatest* facility of motion. But, on the other hand, whatever *particles* are found of a greater weight, and rougher *surface,* are so much the more fixed *and difficult to move.*

Since, therefore, the nature of the mind has been found pre-eminently active, it must of necessity consist of particles exceedingly diminutive, and smooth, and round. Which point, being thus known to you, my excellent *friend,* will be found useful, and be of advantage, in many of *your future* inquiries.

This fact also indicates the nature of the soul, *and shows* of how subtle a texture it consists, and in how small a space it would contain itself, if it could be condensed; because, when the tranquil repose of death has taken possession of a man, and the substance of the mind and the soul has departed, you can there perceive nothing detracted as to appearance,

> Attend: this potent truth thou'lt well perceive;
> For what its point so swiftly can achieve
> As mind? In boundless nature what can vie
> With its unlimited velocity?

[1] Movement more tardy.] Ver. 193. *Cunctantior actius.* "Actus: i. e. motus. *Festus.* "*Actus* significat—*motum* corporis." *Wakefield.*

[2] According as they are most diminutive, &c.] Ver. 200. *Parvissima pro quam et levissima sunt.* Comp. ii. 1136. The Lexicons supply no other instances of *pro quam* but these two.

nothing as to weight, from the whole body. Death leaves all things entire,[1] except vital sense and quickening heat.[2]

It must therefore necessarily be *the case*, that the whole soul consists of extremely small seminal-atoms, connected *and diffused* throughout the veins, the viscera, and the nerves; inasmuch as, when the whole of it has departed from the whole of the body, the extreme outline of the members still shows itself unaltered, nor is an atom of weight withdrawn;[3] just as is the case when the aroma of wine has flown off, or when the sweet odour of ointment has passed away into the air, or when the flavour has departed from any *savoury* substance;[4] *for* still the substance itself does not, on that account, appear diminished to the eye, nor does any thing seem to have been deducted from the weight; evidently because many and minute atoms compose the flavour and odour throughout the whole constitution of bodies.

Wherefore again and again *I say*, you may feel assured that the nature *or substance* of the mind and soul is produced from exquisitely small seminal-atoms, since, when it escapes *from the body*, it carries away no weight *with it*.

Nor yet is this nature *or substance* to be regarded by us as simple *and uncompounded*. For a certain subtle *aura*,[5] mixed

[1] Death leaves all things entire.] Ver. 215. *Mors omnia præstat.* "Mors omnia relinquit integra." *Lambinus.* "Facit ne quid detrimenti in mole corporis appareat." *Faber.*

[2] Quickening heat.] Ver. 217. Calidumque vaporem. Compare ver. 127.

[3] Nor is an atom of weight withdrawn.] Ver. 221. *Nec defit ponderis hilum.* "Hilum they consider to be that which adheres to a bean," (as we say, *the black of a bean*,) "from which comes *nihil* and *nihilum*." *Festus.* "The ancients used *hilum* for *ullum*, any (small) thing." *Priscian*, b. vi. p. 687.

[4] Flavour has departed from any *savoury* substance.] Ver. 224. *Sucus de corpore cessit. Sucus*, or *succus*, is evidently here nothing more than *flavour;* as, probably, in Hor. Sat. ii. 4, 70, Picenis cedunt pomis Tiburtia succo. The reader, I fear, will hardly believe me, when I tell him that Good translates it,

From man
Th' excreted lymph exhales.

[5] Subtle *aura*.] Ver. 233. *Tenuis aura.* I have thought it better to preserve the word *aura* in the English, than to render it by *vapour*, or, as Good has it, "gas." A few verses below, Lucretius calls it *venti cæca potestas.*

with heat, leaves dying *persons;* the heat, moreover, carries air with it; nor is there any heat with which air is not also mixed; since, as its substance is rare, many atoms of air must necessarily be borne with it.

The substance of the mind is now therefore found to be triple. Nor yet are all these *constituent parts, aura,* heat, and air, sufficient to produce *mental* sense *or power;* since the mind admits none of these to be able to generate sensible motions, such as revolve any *thoughts* in the mind. A certain fourth nature, *or substance,*[1] must therefore necessarily be added to these; this is wholly without a name; *it is a substance, however,* than which nothing exists more active or more subtle, nor is any thing more *essentially* composed of small and smooth elementary particles; *and it is this substance* which first distributes sensible motions through the members. For, being formed of small atoms, it is *itself* first excited; then the heat, and the secret power of the *aura,* receive motion *from it;* next the air, and afterwards all *parts,* are quickened; the blood is agitated, and all the viscera partake-in-the-sensation; *and* (whether it be pleasure, or whether it be the contrary feeling) it is communicated to the bones and marrow last *of all.* Nor can pain easily penetrate, or any violent evil spread, so far as this, without all *parts* being perturbed: so that, *in such a case,* room is wanting for life, and the particles of the soul fly off through all the passages of the body. But on the surface of the body, as it were, a limit is generally put to *sensible* motions; and from this cause we have the power to retain life *within us.*

And now, though I would fain give a *full* exposition, in what manner these *principles* are mixed one with another, and how, being arranged, they possess vigour, the poverty of my native tongue restrains me against my will; but notwithstanding, as far as I shall be able to treat of *these subjects* summarily, I will touch upon them.

For the primordial-atoms, by the motion of the elements among themselves, *so* actively-intermingle *in the substance of the soul,* that no one can be separated *from the rest,* nor *can* their power become divided by *any* interval, but, being many,

[1] A certain fourth nature, *or substance.*] Ver. 242. *Quarta quædam natura* The reader now understands Lucretius's composition of the soul. See note on ver. 121.

they are, as it were, the power of a single body. As, in the herd of animals, whichsoever you would inspect,[1] there is a certain odour, and heat, and taste; and still from all these is composed one mass *and combination* of body. So heat, and air, and the secret power of *aura*, and that *other* active force, (which communicates the beginning of motion from itself to the other *three*, whence a sensible movement first arises through the viscera,[2]) being mixed, produce one nature *or substance*. For this *fourth* principle lies entirely hid, and remains in secret, within; nor is any thing more deeply *seated* within our body; and it is itself, moreover, the soul of the whole soul. As the force of the mind, and the power of the soul, mixed up with our limbs and entire body, remains latent, because it is composed of small and few atoms, so this nameless force, compounded of small particles, lies concealed, and is besides, as it were, the very soul of the whole soul, and rules throughout the whole body. In like manner, it must be the case *that* the *aura*, and air, and heat, mixed throughout the limbs, possess-their-vigour one with another; and that one may possibly subside *at times*, or become prominent, more than the rest; *but so* that they may *still* seem to be one *principle* compounded of *them* all; *and* that the heat and *aura* by themselves, or the power of air by itself, may not, being separated from the whole, destroy and dissipate the sense.

There is also that heat in the mind, which it assumes in anger, when it burns, and ardour gleams vividly from the eyes. There is also much cold *aura*, the attendant of fear, with which it produces shivering throughout the *various* members, and agitates the limbs. There is also that state of the air when at rest, which happens *in concurrence* with a tranquil breast and serene countenance. But in those animals, whose fierce hearts, and angry feelings, easily burn in wrath, there is more heat; in which class especially is the violent fury of

[1] As, in the herd of animals, whichsoever you would inspect.] Ver. 267. *Quod genus, in quo vis animantum visere vulgo. Quod genus* is the same as *quemadmodum;* on which point the reader may consult Wakefield on this verse, and on iv. 739. The same words occur a little below, ver. 277 and 328. "In quo vis animantum visere vulgo," says Wakefield, "is in vulgo animantum, quo vis visere, i. e. quemcunque animantem velis intueri." The editions before Wakefield read *in quovis—viscere*, which Lachmann has recalled.

[2] Viscera.] Ver. 273. *Viscera* meant *all parts under the skin*, except bone. See on i. 836.

lions, which, raging, often burst, *as it were*, their hearts with roaring, nor can contain within their breasts their torrents of ire. But the cold temperament of deer has more of the *aura* in it, and sooner excites a chill influence through the viscera, which cause a tremulous motion to arise in the limbs. But the nature of the ox subsists more on calm air, nor does the smoky torch of wrath, applied to him,[1] ever irritate him *to fury like that of the lion*, suffusing him with a shade of thick darkness;[2] nor is he torpid, transfixed with the cold darts of *aura; but* is situate between the two *natures, those of* deer and fiercer lions.

Thus is the race of men. *Each has a certain temperament; and* though instruction may in a manner render some individuals polished, it still leaves the first traces of the nature of every mind; nor is it to be thought that vices can be *so* plucked out by the root, but that one man will run more readily *than another* into violent anger; a second will be affected somewhat sooner *than another* by fear; while a third will regard certain things more indulgently than is right. And in many other respects the various natures, and yielding manners of men, must necessarily differ; of which *differences* I cannot now explain the secret causes, nor find so many names for figures as there are *diversities of shape* in the atoms from which this variety in things arises.

But, with reference to these subjects, I think myself competent to affirm this; that so small are the traces left of the natural principles, which reason cannot remove[3] by *her* dictates, that nothing hinders *men* from leading a life worthy of the gods.

[1] Nor does the smoky torch of wrath, applied to him, *&c.*] Ver. 304. *Nec minus iraï fax nunquam subdita percit Fumida.* There seems scarcely any possibility of extracting satisfactory sense from this line, unless by considering *minus nunquam* equal to *unquam*; and this construction I have adopted. Lambinus read, *nec nimis iraï fax unquam;* and had Lachmann, who follows Lambinus, and who in other places animadverts severely on Wakefield and Forbiger, said that nobody but they could think this verse in a right state, most readers would surely have agreed with him. The meaning is evident; that the ox *may be excited*, but not to the same degree as the lion.

[2] Suffusing—darkness.] Ver. 305. *Suffundens cæcæ caliginis umbram.*

[3] So small are the traces left of the natural principles, which reason cannot remove.] Ver. 321.

Usque adeò naturarum vestigia linqui
Parvola, quæ nequeat ratio depellere dictis.

This *mental* nature, therefore,[1] *or compound intellectual substance,* is contained in every body, and is itself the guardian of the body, and the cause of *its* safety; for the two, *the body and soul*, cohere, *as it were*, by common roots, with one another, nor seem capable of being torn asunder without destruction *to both*. *For* as it is impossible to separate the perfume from balls of frankincense, without the nature of it, at the same time, being destroyed, so it is impossible to extract the nature *or substance* of the mind and soul from the whole body, without all *parts* being dissolved; with such *closely* interwoven elements, from their first origin, are they endowed with common life; nor does the power of the body or mind seem capable of having-perception apart, each for itself, without the vigour of the other; but the sentient-power lighted up through our viscera is conjointly-produced by their common motions one with the other.[2]

Besides, the body is never produced,[3] nor *ever* grows, by itself; nor is it observed to retain-its-existence after death, *or the departure of the soul from it.* For *it is* not as *when* the liquid-substance of water frequently throws off heat, which has been communicated to it, nor is on that account dispersed itself;—not so, I say, can the limbs, when deserted *by the soul*, bear the separation of the soul *from them*, but, *thus* divided *from it*, altogether perish and rot. *For* the mutual inter-connexions of the soul and the corporeal frame, from the very beginning of life, even in the body and secret womb of the mother, so acquire the vital movements together, that a separation cannot take place without destruction and damage to each; *so* that you may see that, since their means of preservation are united, the nature *and substance* of them must also be united.

For what remains *to be considered*, if any one denies that

The Delphin editor explains *naturarum* to signify *heat*, *air*, and *aura*, of which (with the fourth, or reason) the soul and mind consist. Some, as Lambinus observes, would read *naturaï*.

[1] This *mental* nature, therefore, *&c.*] Ver. 324. "This nature, composed of the four above-mentioned substances." *Lambinus.*

[2] Common motions one with the other.] Ver. 336. *Communibus inter eos—utrinque motibus. Utrinque:* proceeding from both. The *fourth substance* of the mind, however, is the prime mover, ver. 246.

[3] Besides, the body is never produced, *&c.*] Ver. 338. *Præterea corpus per se nec gignitur unquam.* "The body, whether of man, or of any other animal." *Lambinus.*

the body has sense, and believes that the soul, mixed with the entire body, takes *wholly* upon itself that motion which we call sense; he contends against manifest and certain facts. For who will ever explain what it is for the body to have sense, if *it be* not *that* which experience itself has manifestly shown and taught us? But the soul being set free *from the body*, the body is void of sense in all parts: for it loses that which was not peculiar to itself in *any period of* its life; and it besides loses many things as *the soul* is-being-expelled by age.[1]

To affirm, moreover, that the eyes[2] *themselves* can see no object, but that the mind *merely* looks through them as through open doors, is difficult; when the sense of these *eyes* leads *to a* contrary *opinion;* for the sense *of the eyes* draws *the mind,*[3] and attracts it from *within*, to the sights *or pupils* themselves. While, *let it* especially *be considered*, we are often unable to look at bright objects, because our eyes are prevented by their effulgence; which is not *the case* with regard to *mere* doors; for *mere* open doors, where we look through, do not feel any inconvenience. Besides, if our eyes are only instead of doors the mind, when the eyes are taken out, *and* the door-posts themselves, *so to speak*, removed, seems bound to see even more *clearly than before.*

On these points, you can by no means assume *as true*[4] that

[1] And it besides loses many things as the soul is-being-expelled by age.] Ver. 359. *Multaque præterea perdit, quum expellitur ævo.* I have interpreted this line according to Wakefield, who, however, reads *dum*. The soul loses some portion of her faculties, as the body decays, and is about to part from her. Forbiger, thinking that the verse may be spurious, includes it in brackets. Lachmann gives *nullaque*, from conjecture.

[2] To affirm, moreover, that the eyes, *&c.*] Ver. 360. *Dicere porro oculos*, &c. There were some who thought that the whole body did not possess or exercise sense, but the mind only, which, residing in the body, saw and heard, *&c.*, through the organs of it; among whom was Epicharmus, who used to say *the mind sees, the mind hears. Creech.*

[3] For the sense *of the eyes* draws *the mind, &c.*] Ver. 363. *Sensus enim trahit, atque acies detrudit ad ipsas.* "The sense of the eyes, struck with external objects, calls forth the mind to the pupils of the eyes, so that, the powers of the mind and the eye being united, the faculty of vision may arise from their combination." *Wakefield.*

[4] On these points, you can by no means assume as true, *&c.*] Ver. 371. Democritus taught that the atoms of the soul, and those of

which the divine opinion of the philosopher Democritus lays down; *namely*, that the several atoms of the body and mind, applied *and corresponding* each to each, vary and connect the members.[1] For not only are the atoms of the soul much more diminutive than *those* of which our body and viscera consist, but are also inferior in number, and are distributed thinly, *with spaces between them*, throughout the limbs; *so* that you may safely warrant that the primary particles of the soul occupy, *and are distributed at* those intervals *only*, at which corporeal atoms cast upon us, *and striking against us*, may, *if of sufficient gravity*, be able to excite sensible motions through the body, *the concussions being communicated from the surface to the internal parts.* For neither at times do we perceive the adhesion of dust on the body, nor *feel powdered* chalk, shaken over the limbs, settle on them; nor do we feel a mist at night, nor the subtle threads of the spider's web meeting us, when we are entangled in them as we go along; nor *do we notice* the old vesture of the same *spider* fall upon our head, nor feathers of birds, or the flying down of thistles, which, from extreme lightness, generally fall with difficulty. *and strike but gently the object on which they fall;* nor do we observe the progress of every creeping animal, nor every first step of the feet, which gnats and other *such insects* place upon our body; so many *particles* in us must be moved, before the primordial-atoms of the soul, mixed throughout the limbs in our bodies, can feel-the-sensation, and, impelling *one another*, (at how great intervals!) can, in succession, strike together, meet, and rebound.

And the mind is more *efficient in* holding the bars of life,[3]

the body, were equal in number, and were united, atom to atom, throughout the whole human frame. But this cannot be true, says Lucretius; for, if it were, whatever might touch any atom on the surface of the body, however lightly, would agitate the corresponding atom of the mind; whereas many substances touch the body without the mind being sensible of the contact.

[1] Connect the members.] Ver. 374. *Nectere membra.* "So unite them, that they may have motions in common, and conspire one with another." *Wakefield.*

[2] Corporeal atoms, cast upon us, &c.] Ver. 379. *Prima corpora nobis injecta.* "Atoms so casting themselves upon us, and striking against us, as to produce sensible motions in the body, by arousing the power of the mind to its duty." *Wakefield.*

[3] And the mind is more *efficient in* holding the bars of life, &c.]

and more prevalent to *preserve* vitality, than the power of the soul. For without the understanding and mind no part of the soul can have-its-residence in the body *even* for a small portion of time; but *when the mind takes its departure, the soul* readily follows as its companion, and leaves the chilled limbs in the cold of death. But he to whom understanding and mind have remained, continues in life, although he be mutilated, with his limbs *even* cut off on all sides. The trunk, *though portions of* the soul *be* taken away around *it*, and *it be* separated from the limbs, *still* lives, and inhales the vital air;—deprived, if not altogether, yet in a great measure, of the soul, it still delays and continues in life. So when the eye is lacerated round about, if the pupil has remained uninjured, the vivid faculty of seeing survives; *but this is only* provided you do not injure the entire ball of the eye, but *merely* cut round the pupil, and leave that alone *whole;* for such *injury* cannot be committed without destruction of the *eyes;* but, if the very smallest part of the middle of the ball is perforated, though the bright orb *be* otherwise unharmed, the sight is at once lost, and darkness follows. With such a connexion the soul and the mind are constantly united.

And now attend. That thou mayest understand[1] that living creatures have minds, and subtle souls, BORN and PERISHABLE, I will proceed to arrange verses worthy of thy life *and virtues,*[2] *verses* collected during a long time, and prepared with

Ver. 397. *Et magis est animus vitaï claustra coercens.* As he has placed the mind (*animus*) in the breast, and distributed the soul (*anima*) through the whole body, he now shows that though part of the *soul* may, by mutilation of the body, be taken away, life, as long as the *mind* remains uninjured, will still be preserved; just as the sight of the eye will continue perfect, as long as no damage is done to the pupil.

[1] *And* now attend. That thou mayest understand, *&c.*] Ver. 418. He now proceeds, with all the force of reasoning that he can collect, to show that the united substance of the mind and soul is born, grows, decays, and dies, together with the body. In this process he uses, as he gives notice, the words *mind* and *soul* indiscriminately. Creech distinguishes the whole demonstration into eight and twenty arguments; Eichstadt into six and twenty. We may rather consider the first twenty as the *real and positive arguments*, and regard the remaining six as *additional observations.* I shall notice the different heads, as we proceed, at the commencement of each paragraph.

[2] Worthy of thy life *and virtues.*] Ver. 421. *Digna tuâ carmina vitâ.* "Worthy of thy life and conduct, whom the Muse *has willed*

sweet labour. *And* thou, *my friend*, take care to include both of them under one name, *whichsoever of the two I may use;* and, for example, when I proceed to speak of the soul, teaching that it is mortal, suppose that I also speak of the mind; inasmuch as they are one by mutual *combination*, and their substance is united.

In the first place, since I have shown[1] that the *soul*, *being* subtle, consists of minute particles, and is composed of much smaller atoms than the clear fluid of water, or mist, or smoke; (for it far surpasses *those bodies* in susceptibility-of-motion, and is more readily impelled when acted upon from a slight cause; inasmuch as *both the mind and soul* are moved by the *mere* images of smoke and mist;[2] as when, lulled in sleep, we see high altars exhale with vapour, and carry up smoke; since doubtless these phantasms are produced in us;)[3] now, therefore, *I say*, since, when vessels are broken to pieces, you see water flow about, and *any other* liquid run away;

at all times to excel, being graced with every gift." Wakefield. See I 27, 28.

[1] In the first place, since I have shown, *&c.*] Ver. 425. This is his *first argument.* Since the soul is more subtle than vapour or smoke, it must surely be sooner dissipated than those light substances, when it is once set free from the body that confines it.

[2] Inasmuch as *both the mind and soul* are moved by the *mere* images of smoke and mist.] Ver. 431. *Quippe ubi imaginibus fumi nebulæque moventur.* "Quippe ubi," says Lambinus, "is *quippe quia*, or *quippe cùm.*" *Moventur*, in the plural, is the reading of Wakefield, to include the *mind* and the *soul;* but, as Lachmann remarks, it is absurd, since Lucretius considers the *two* as *one;* other copies have *movetur.* As to the *imagines* in the mind, says Turnebus, (Advers. xx. 26,) Lucretius means that "the atoms of the mind are finer than those of smoke and mist, since they are moved even by the images and *simulacra* of smoke and mist." "A pleasant argument," says Faber; "the images of smoke and mist move the mind; therefore it must be very light."

[3] Since doubtless these phantasms are produced in us.] Ver. 434. *Nam procul hæc dubio nobis simulacra genuntur.* "Procul dubio istarum rerum phantasmata per simulachra in nobis excitantur." *Creech.* Lucretius, with his master, Epicurus, thought that the images thrown off from objects (as shown in book iv.) flying about in the air, and coming in contact with our bodies, produced such impressions upon the soul as to excite dreams. "For without images," says Lambinus, "Epicurus supposed that nothing could be seen, or thought, or dreamed." *Incohibessit*, at the end of the paragraph, (ver. 445,) I have rendered as the present.

and since, *also*, mist and smoke disperse into the air; *you must* conclude that the soul is likewise scattered abroad, and is dissipated much sooner *than mist and smoke*, and more easily resolved into *its* original elements, when it *has* once *been* withdrawn from the body of a man, *and* has taken its departure. For how can you believe that this *soul* can be held together by any *combination of* air, when the body itself (which is, as it were, its vessel) cannot contain it, *if it be* convulsed by any violence, or rendered thin *and weak* by blood being taken from the veins? How can *that air which is* more rare than our body confine it?

Besides, we observe that the mind is produced[1] together with the body, and grows up along *with it*, and waxes old at the same time *with it*. For as children wander *and totter* about with a weak and tender body, so the subtle sense of the mind follows *and corresponds to the weakness of their frame.* Then, when their age has grown up in robust vigour, their understanding is also greater, and their strength of mind more enlarged. Afterwards, when the body is shaken by the prevailing power of time, and, the strength being depressed, the limbs have sunk *into* infirmity, the understanding *then* halts, the tongue and the mind lose their sense, all *parts* fail and fade away at once. It is therefore natural that the whole substance of the soul should be dissolved, as smoke, into the sublime air of heaven; since we see that it is produced together with the body, and grows up together *with it*, and both, as I have shown, overcome by age, decay in concert.

To this is added,[2] that as we observe the body itself to-be-subject-to violent diseases and severe pain, so *we see* the mind *to be susceptible of* sharp cares, and grief, and fear. For which cause it is reasonable that it should also be a partaker of death.

Moreover the mind, in diseases of the body, often wanders

[1] Besides, we observe that the mind is produced, *&c.*] Ver. 446. The *second argument.* Since the mind appears tender when the body is tender; mature, when the body is mature; and declining, when the body is declining; it is but fair to conclude, that it perishes when the body perishes.

[2] To this is added, *&c.*] Ver. 460. The *third argument.* Since, when the body is weakened by disease, the mind or soul is weakened with it, must we not conclude that, when the body dies, the mind or soul dies with it?

distracted; for it loses its faculties, and utters senseless words; and sometimes, by a heavy lethargy, is borne down into a deep and eternal sleep, the eyes and the nodding-head sinking;[1] hence it neither hears the voice, nor can distinguish the countenances, of those who stand around recalling it to life, bedewing their faces and cheeks with tears. Wherefore you must necessarily admit that the mind is also dissolved, since the contagion of disease penetrates into it. For pain and disease are each the fabricator of death; *a truth* which we have been taught by the destruction of many *millions* in past times.

Further, when the violent power of wine[2] has penetrated the heart of men, and its heat, being distributed, has spread into the veins, a heaviness of the limbs follows, the legs of the tottering person are impeded, the tongue grows torpid, the mind is, *as it were*, drowned; the eyes swim; noise, hiccups,[3] and quarrels arise, and other things of this kind, whatever are consequent *on intoxication*. Why do these *effects* happen, unless because the vehement force of the wine has exerted-its-customary-power to disturb the soul *as it is diffused* through the body itself? But whatsoever things can be *thus* disturbed and obstructed *in their operations*, show, that if a cause somewhat stronger shall spread within *them, the consequence* will be that they must perish, deprived of *all* future existence.

Moreover, frequently, overcome by the force of disease,[4] a person suddenly falls down before our eyes, as *if struck* by the blow of a thunder-bolt, and foams *at the mouth*, groans, and trembles in his joints, loses his senses, stretches his nerves *to rigidity*, is distorted, pants with irregular *breathing*, and

[1] The eyes and the nodding-head sinking.] Ver. 467. *Oculis nutuque cadenti.* "By *nutus cadens* nothing more seems to be signified than the dejection or sinking down of the head." *Lambinus.*

[2] Further, when the violent power of wine, *&c.*] Ver. 475. The *fourth argument.* Since intoxicating power, such as that of wine, can disturb the soul, why may not a stronger force utterly destroy it?

[3] Hiccups.] Ver. 479. *Singultus, jurgia gliscunt.* "Hiccough, noise, and strife." *Good.*

[4] Moreover, frequently, overcome by the force of disease, *&c.*] Ver. 486. The *fifth argument.* Since the soul, in a case of *morbus comitialis*, or falling sickness, is torn and distracted, why may it not, at death, be altogether dissolved and dispersed?

wearies his limbs with tossing about; evidently because the violence of the malady, dispersed throughout the body, *and* acting upon the soul, perturbs it, as the waves, on the foaming salt ocean, boil with the strong fury of the winds. Groans are then forced out, because the limbs are seized with pain, and especially because the particles of the voice are drawn forth, and carried, collected *in a body*, out of the mouth, *the way* by which they have, as it were, been accustomed *to pass*, and *where the course* of the road is paved *for them*.[1] Loss of understanding takes place, because the *united* power of the mind and soul is disturbed, and, as I have shown, is divided *and* rent asunder, distracted by that same distemper. Afterwards, when the cause of the disease has given way, and the violent humour of the disordered body has retired into its hiding-place, then, as if staggering, *the person* first rises, and, by degrees, returns to all his senses, and re-possesses *the right state of* his soul.

When these *substances*, therefore, *the mind and the soul*, are shaken with such powerful diseases in the body itself, and suffer, distracted in *such* miserable ways, why do you conceive that the same *mind and soul* can support an existence without a body, in the open air, *and* amidst strong winds?

And since we see that the mind may be healed,[2] like a sick body, and wrought upon by means of medicine, this also signifies that the mind exists *only as a* mortal *substance*. For whoever attempts, and commences, to change the mind, or to alter any other nature *or substance*[3] whatsoever, it is requisite *either* that he add *new* parts, or transpose *the parts* in *a new* order, or take away at least some small portion from the whole. But any *substance*, which is immortal, neither allows

[1] *The course* of the road is paved *for them*.] Ver. 497. *Sunt munita viai*. The expression seemed so strange to Lambinus, that he wished to cancel the whole verse, but, as it seems, without reason. *We* say of a man who drinks very hot liquids, that *his throat must be paved*.

[2] And since we see that the mind may be healed, *&c.*] Ver. 509. The *sixth argument*. Since the mind, when affected by sickness, is restored, like the body in the same case, by medicine, must we not suppose that the mind is mortal like the body?

[3] To alter any other nature *or substance*.] Ver. 515. *Aliam quamvis naturam flectere*. The Delphin editor rightly interprets *naturam*, "rem," or substance; a signification which it often has, as well in Lucretius as in Cicero and other philosophical writers. *Flectere*, to alter by restoring and improving.

its parts to be transposed, nor to-be-increased-by-addition, nor *permits* an atom to pass away from them. For whatever, being changed, goes beyond[1] its own limits, this *change* is forthwith the death *or termination* of that which it was before.

The mind, therefore, whether it be diseased, or whether it be wrought upon by medicine, exhibits, as I have demonstrated, mortal symptoms: so far is the force of true reason seen to oppose false[2] *reasoning*, and to cut off escape from him who shrinks *from its conclusions*, and to overthrow what is wrong by a double refutation.

Furthermore, we often see a man decay by degrees,[3] and lose his vital power in one limb after another. On the feet *we observe* the toes and nails first grow livid; then the feet *themselves* and the legs mortify; afterwards, throughout the other limbs, *we perceive* the traces of cold death thence proceed step by step.[4] And since the substance of the soul is *thus* divided, and does not continue, *always and* at the same time, entire *and unimpaired*, it must be deemed mortal. But if perchance you think that *the soul* can itself contract itself internally throughout the limbs, and condense its parts into one *place*, and thus withdraw feeling from all the members

[1] For whatever, being changed, goes beyond, *&c.*] See i. 378, 875; ii. 761.

[2] So far is the force of true reason seen to oppose false, *&c.*] Ver. 522.

> Usque adeò falsæ rationis vera videtur
> Res occurrere, et effugium præcludere eunti,
> Ancipitique refutatu convincere falsum.

The construction, according to Wakefield, is *Vera res rationis videtur occurrere falsæ (rei rationis)*. Lambinus's reading, *rationi*, is much more simple: i. e. *res vera*, fact, experience, is seen to oppose *falsæ rationi*, false reasoning. *Eunti*, i. e. *effugienti*, him that attempts to escape. *Ancipiti refutatu*, viz. both by falling sick and growing well.

[3] Furthermore, we often see a man decay by degrees, *&c.*] Ver. 525. The *seventh argument*. Since the body often dies by degrees, limb by limb, must we not suppose that the soul, which is resident in it, dies gradually with it? How can we suppose that a soul, apparently decaying with a body partially sunk in death, can be destined to live for ever in full vigour?

[4] Afterwards —— thence proceed step by step.] Ver. 528. *Post inde per artus Ire alios tractim—*. *Post*, says Wakefield, refers to the lapse of time, *inde* to the spread of the disease. *Tractim* is *sese trahendo*, dragging itself along slowly.—And does not continue, *&c.*] *Nec uno Tempore sincera existit.* "Nec eodem tempore tota sincera, integra, et incorrupta invenitur." *Creech.*

successively, yet, *in such a case*, that place in which so great a mass of soul is collected, ought to seem in *possession of* greater feeling. *But* since this *place of such increased feeling* is no where *apparent, the soul*, as we said before, is evidently, being separated-into-parts, scattered abroad, *and* therefore perishes.

Moreover, if we even consent to grant *that which* is false, and to allow that the soul may be *thus* concentrated in the bodies of those who leave light *and life by* dying part after part, you must still confess that the soul is mortal; *for* neither is it of any importance whether it perishes, being scattered throughout the air, or loses its sense when drawn together from *being dispersed in* its *several* parts,[1] when animation steals away from the whole man more and more on all sides, and less and less of life is every where left.

And as the mind is one single part[2] of a man, and remains fixed in a certain place, as the ears and eyes are, and the other *organs of* sense, whatsoever govern life; and as the hand, and the eye or nose, when detached from us, cannot, separately *of themselves*, have sensation or *even* existence, for, when cut off, they are in a short time wasted with putrefaction; so the mind cannot, of itself, exist without the body and the man himself, which *body* seems to be, as it were, its vessel, or whatsoever else you would imagine to be more closely united with it, since it adheres to the body by connexion.

Further, the animated powers of the body and mind[3] are vigorous, and enjoy life, only when joined with one another;

[1] Drawn together from *being dispersed in* its *several* parts.] Ver. 544. *Contracta suis è partibus.* Loses its sense, *obbrutescat.* Festus cites from Afranius, *non possum verbum facere; obrutui;* for *obbrutui*, I have grown dull and stupid.

[2] And as the mind is one single part, *&c.*] Ver. 547. The *eighth argument.* Since the mind is part of a man, like any other member or organ, as already shown (ver. 94); and since any other member or organ cannot exercise its functions, or even preserve its existence, if separated from the body, how can we suppose that the mind differs from them in this respect?

[3] Further, the animated powers of the body and mind, *&c.*] Ver. 557. The *ninth argument.* The mind and body united together, enjoy life, but when they are disjoined, the body dies, and are we not to suppose that the soul dies also? Can we imagine that it preserves its existence in the air? At the commencement of the paragraph I have altered *potestas* into "powers."

for neither can the nature *or substance* of the mind, without the body, alone, *and* of itself, produce vital motions; nor again, *can* the body, deprived of the soul, continue *its state of existence*, and use its faculties. Just, for example,[1] as the eye itself, torn from its roots, can discern no object apart from the whole body, so the mind or soul seems to have no power in itself; evidently because when mingled throughout the veins and viscera, throughout the nerves and bones, they are held-in-close-confinement by the whole body, and their primary-particles, not being free, cannot fly asunder to great distances; consequently, being thus confined, they move with sensitive motions, with which, after death, when cast forth beyond the body into the air of heaven, they cannot move; for this very reason, that they are not held-confined in a similar manner. For *surely* the air forms body and soul,[2] if the soul shall be able to keep itself together *in the air*, and to contain itself for *exerting* those motions, which it before exercised amidst the nerves, and in the body itself. On which account, *I say* again and again, you must necessarily admit that when the whole enclosure of the body is dissolved, and the vital breath cast forth, the sentient-existence of the mind and the soul is dissolved; since there is common cause *and like fate* to both.

Besides, when the body cannot bear the dissociation[3] of the

[1] Just, for example, *&c.*] Ver. 562. *Scilicet.*—Ver. 564. "Mind or soul seems:" *anima atque animus—videtur.*—Ver. 565. "when mingled:" *mixtim.*

[2] For *surely* the air forms body and soul, *&c.*] Ver. 572. *Corpus atque animam serit aer, si cohibere sese anima, atque in eos poterit concludere motus*, &c. The *serit* is Wakefield's; Lambinus and his followers have *corpus enim atque animans erit aer;* on which Lambinus very judiciously comments thus: "If the atoms of the soul, when in the open air, can keep themselves together, and produce the same motions as when they were in the body, the air will then be both a body and a living creature; but this is absurd, therefore, *&c.*" But this did not satisfy Wakefield, who, finding in certain manuscripts *serit*, transferred it to his text, with an exposition which I shall leave in his own Latin. "Aer est, qui serit (vel gignit * * *) corpus et animam, (i. e. animantem ex utroque compositum) si in aere se continere possit (anima) atque ab aere cohiberi: nihil simplicius et luculentius." Forbiger of course dutifully followed. But Lachmann has very wisely reinstated the reading of Lambinus.

[3] Besides, when the body cannot bear the dissociation, *&c.*] Ver. 579. The *tenth argument.* Since, on the separation of the soul and

soul, without putrifying with offensive odour, why do you doubt but that the essence of the soul, rising from the depths and innermost part *of the body*, has passed forth, *and has been* diffused abroad like smoke? and that for this reason the body, decaying with so great a dissolution, has utterly fallen away, because the foundations[1] have been removed from their place, and the spirits pass out through the limbs, and through all the windings of the passages and ducts that are in the body? So that you may understand from many considerations, that the nature *or substance* of the soul, being disparted, has gone out through the members *of the body*, and that it was dissevered within the body itself, before, gliding outwards, it flowed forth into the air of heaven.

Moreover, whilst the soul dwells within the bounds[2] of life, it yet frequently, when it has received a shock from some cause, seems to pass away, and *presents the appearance* that the mind is let loose from the whole body; and the countenance *then* seems to become inanimate as at the last hour, and all the relaxed members to fail the languid frame. Such is the case, when it is said that the mind has been damaged,[3] or the vital power has suffered-syncope; while *all* is trepidation, and all are anxious to recover the last link of life. For then all the mind, and power of the soul, are shaken; and these, *it is evident*, sink with the body itself; *so* that a cause of somewhat greater force may bring *them* to dissolution.

Why *then* do you doubt, but that, *at the hour of death, the soul* driven forth at length, weak *and helpless*, out of the body,

body, the body falls to pieces, why should we conceive that the soul remains entire?

[1] Foundations, *&c.*] Ver. 584. *Mota loco sunt Fundamenta.*

[2] Moreover, whilst the soul dwells within the bounds, *&c.*] Ver. 591. The *eleventh argument.* In a fainting fit we see the soul deprived of its powers even while it yet remains in the body; and how is it then to sustain itself when it is deprived of the covering and protection of the body?

[3] That the mind has been damaged, *&c.*] Ver. 596.

> Quod genus est, animo malè factum quum perhibetur,
> Aut animam liquisse; ubi jam trepidatur, et omnes
> Extremum cupiunt vitæ reprehendere vinclum.

The expression *animo malè factum*, "the mind has been damaged," says Wakefield, was the vulgar phraseology; the phrase *animam liquisse*, λειποψύχησαι, "suffered-syncope," the mode in which the better instructed spoke.

and being in the open air, with its covering removed, can not only not endure throughout all time, but cannot even maintain-its-existence for the smallest space whatsoever?

Nor does any one, when dying, appear to feel[1] his soul go forth entire from his whole body, or come up first to his throat, and to his jaws above *it;* but *he finds that part of it which is* placed in any certain portion *of the body*, fail *and decay* in that part; as he is conscious of the other senses losing-their-power each in its own quarter; but if our soul were immortal, it would not so much complain that it suffers dissolution when dying, but would rather rejoice to pass forth abroad, and to leave its covering, as a snake *delights to cast its skin*, or an old stag its too long antlers.

Again, why are the understanding and faculty[2] of the mind never produced in the head, or the feet, or the hands, but remain-fixed, in all men alike, in their peculiar seats and definite quarters, if *it be not that* certain spots are assigned to each *part* to be born *in*, and where *each*, whatever *it be*, may preserve-its-existence when born; and *if it be not* that such is the case with respect to the whole of the various members, so that there may no where arise an improper arrangement of the parts? So invariably, *in the operations of nature*, does one thing follow another; nor is fire wont to be produced from rivers, or cold to be generated in fire.

Besides, if the nature of the soul is immortal, and can have-a-sentient-existence,[3] when separated from our body,

[1] Nor does any one, when dying, appear to feel, *&c.*] Ver. 606. The *twelfth argument.* Who, at death, feels his soul going out entire from him? Does it not seem to lose its vitality, throughout the body, equally with the various organs of the body?

[2] Again, why are the understanding and faculty, *&c.*] 615. The *thirteenth argument.* Why is the mind always generated in the breast, if it be not that a certain part or organ of the body is assigned to it as to each of the senses; an organ with which it is born and with which it dies?——The whole of the various members.] Ver. 620. *Multimodis pro totis artubus;* "multimodis" being an adjective

[3] Besides, if——sentient existence, *&c.*] Ver. 624. The *fourteenth argument.* If the soul, after death, is to live and enjoy sense, it must have organs of sense; but it has left the organs of sense in the body.——I have added a few words at the end of the paragraph. Lachmann improves the whole of it by reading, in ver. 632, *animæ* for *animâ*, according to a conjecture of Pius.

we must consider it, as I suppose, to be endowed with the five senses; nor in any other way can we represent to ourselves the infernal souls as wandering on *the banks of* the Acheron. Accordingly painters, and the past generations of writers, have introduced *in their compositions* souls thus endowed with senses. But neither can the eyes, nor the nostrils, nor the hand itself, preserve-existence apart from the soul; nor *can* the tongue; nor can the ears perceive hearing, or even remain-in-being, apart *from the soul. How then can souls be possessed of the five senses, when all the organs of those senses have perished?*

And since we see that the vital sense spreads through the whole body,[1] and that the whole is animated, if, on a sudden, any violence shall cut through *the body in the* middle, so as to sever the two parts asunder, the substance of the soul, also, without doubt, being disunited and divided together with the body, will be dispersed *and scattered abroad.* But that which is divided, and separates into any parts, evidently shows that it has not an ever-during nature.

People relate that chariots armed with scythes, warm with promiscuous slaughter, often cut off limbs with such suddenness, that the part which, being severed, has fallen from the body, is seen to quiver on the ground, when, notwithstanding, the mind and spirit of the man, from the quickness of the wound, cannot feel any pain. And because at the same time, the mind, in the ardour of battle, is given up *to action*, it pursues fighting and slaughter with the remainder of the body; nor is *one man* aware, frequently, in the midst of the horses, that the wheels and amputating scythes have carried away his left hand, which is lost together with its defence, nor *is* another *conscious*, while he climbs the wall and presses forward, that his right hand has dropped off. A third next attempts to rise after having lost his leg, while his dying foot, close by *him*, moves its toes on the ground. And the head *of*

[1] And since——vital sense—through the whole body.] Ver. 634. The *fifteenth argument.* Since the soul spreads through the body, it may be divided with the body; but that which may be divided is mortal. Or shall we say that when a limb is cut off from the body, and shows that it retains life in it, there is still in it a soul? But to assert this would be to assert that one animal has many souls.

a fourth, severed from the warm and living trunk, keeps, *while lying* on the ground, its look of life and its eyes open, until it has yielded up all remains of the soul within it.

Moreover, if, when the tongue of a serpent vibrates *against you*, and his tail and long body threaten *you*, you may feel inclined to cut both *tail and body* into several parts with your sword, you will see all the parts separately, cut through with the recent wound, writhe about, and sprinkle the earth with blood; and *you will observe* the fore part, turning backward, seeking itself, *that is, the hinder part of the body*, with its mouth, so that, pierced with the burning anguish of the wound, it may seize it with its teeth.

Shall we then say that there are entire souls in all those several parts? But from that position it will follow that one living creature had several souls in its *single* body. *And since this is absurd, we must admit*, therefore, *that* that has been divided which was one with the body; wherefore both must be thought to be mortal; since *both* are equally divided into several portions.

Besides, if the nature of the soul exists imperishable, and is infused into men[1] at their birth, why are we unable to remember the period-of-existence previously spent *by us*, nor retain any traces of past transactions? For if the power of the mind is so exceedingly changed, that all remembrance of past things has departed from it, that change, as I think, is not far removed from death *itself*. For which reason you must of necessity acknowledge, that whatever *soul* previously existed has perished, and that that which exists for the present has been produced for the present.

Again, if, after the body is completely formed,[2] the vital

[1] Besides, if the nature of the soul — infused into men, *&c.*] Ver. 670. The *sixteenth argument*. "If the soul, being immortal, and existing entire, before the formation of the body, is at length infused into it, (as was the opinion of Pythagoras and Plato,) why has no one (Pythagoras alone excepted) remembered his past life? But if the soul, thus previously existing, lost all recollection of the past at its entrance into the body, why may not that which is subject to such a loss of memory, be liable to death itself?" *Creech*. Comp. i. 117.

[2] Again, if after the body is completely formed, *&c.*] Ver. 679. The *seventeenth argument*. Were the soul lodged in the body after the body is formed, it might be expected to live as an animal in a cage,

power of the soul is wont to be introduced into us at the very time when we are born and when we cross the threshold of life, it would not be in accordance with this, that it should seem, *as it now seems*, to have grown up in the blood itself together with the body, and with its *several* members; but it would rather be natural that it should live alone, as in a cage, by itself *and* for itself; though *in such a manner*, that the whole body, *by its influence*, should abound with sense *and vitality*. For which reason, *I say* again and again, we must neither think that souls are without beginning, nor that they are exempt from the law of death. For neither must we deem that souls, *if* infused *into us* from without, could have been so completely united with our bodies; (which complete *union*, on the contrary, manifest experience proves to take place; for *the soul* is so combined *with the body* throughout the veins, viscera, nerves, and bones, that even the very teeth have a share of feeling; as their aching proves, and the acute-pain from cold water, and the cranching of a hard pebble[1] suddenly among our food;) nor, when they are so *completely* united, does it seem possible for them to come out entire, and to extricate themselves unharmed from all the nerves, and bones, and joints.

But if *still*, perchance, you think that a soul, infused from without,[2] is wont to expand itself through our limbs, *yet to admit this, is only to admit that* every man's *soul*, being spread out with the body, will so much the more *certainly* perish *with it*. For that which is diffused *throughout the body*, is dissolved with it, *and* therefore perishes. Being distributed, then, through all the passages of the body,—as food, when it

not diffused, as it is throughout the whole substance of the body, with which it seems to be born only that it may die with it.

[1] The cranching of a hard pebble, &c.] Ver. 694. *Et lapis oppressus subitis è frugibus asper*. Literally, *and a rough stone pressed-on from sudden corn*, or *bread*. The feeling in the teeth, he says, shows that the soul pervades the teeth.

[2] But if still, perchance, you think that a soul, infused from without, &c.] Ver. 698. The *eighteenth argument*. But suppose that a soul, formed before the birth of the body, is infused into the body, must it not, being so intimately united with the body, be subject to change with it, from the influence of different kinds of food, and other causes? And must not a being thus subject to change with the body, be liable to destruction together with it?

is distributed through all the members and limbs, is dissolved, and takes of itself another nature,[1]—so the soul and the mind, although, *under this supposition*, they go whole into the body at first, yet are dissolved, *like digested food*, in diffusing themselves *through it*, while the particles are distributed, as if through tubes, into all the limbs; *the particles, I say*, of which is formed this substance of the mind, which now rules in our body, and which has been generated, *like the new nature of food*, from that which lost its consistence when it was spread throughout the limbs.

For which reasons, the nature *or substance* of the soul seems neither to have been without a natal day, nor to be exempt from death.

Again, whether do any atoms of the soul remain[2] in a dead body, or not? For if any remain and exist in *the body*, it will not be possible for *the soul* to be justly accounted immortal; since *when* she took her departure, *she was* diminished of *some* lost particles. But if, when removed, she fled with *all* her parts so entire, that she left no atoms of her substance in the body, whence do dead carcasses, when the viscera become putrid, send forth worms? And whence does such an abundance of living creatures, void of bones and blood, swarm over the swollen limbs?

But if, perchance, you think that *perfectly-formed* souls

[1] Is dissolved, and takes of itself another nature.] Ver. 704. *Disperit, atque aliam naturam sufficit ex se.* "Loses its own proper nature, and forms another substance altogether different from what it was at first." *Creech.*

As vanish foods, through every mazy gland,
Through every limb when urged, to different forms
Converting gradual. *Good.*

Sufficit, that is, (say Lambinus and Faber,) "suppeditat, subministrat." The food, by being dissolved, supplies, furnishes, presents, exhibits, is converted into, a substance of a different nature from that which it had at first.—The soul and the mind—are dissolved.] *Dissoluuntur.* He means that, while the soul would be expanded throughout the body, its original consistence would be much altered, many of its particles being detached from others by intervening particles of the body.

[2] Again, whether do any atoms of the soul remain, *&c.*] Ver. 713. The *nineteenth argument.* When a man is dead, does any portion of the soul remain in the dead body? If none remains, how are worms animated? If any remains, how can the soul be pronounced indissoluble and imperishable?

may be insinuated into those worms from without, and if *you suppose* that they may pass each into its own body, and *yet* omit to consider for what cause many thousands of souls should congregate *in the place* from which one soul has withdrawn, this point, however, *which you leave out of consideration*, is *of such a nature*, that it seems *especially* worthy to be sought into and brought under examination. *It is proper not only to reflect*, I say, whether souls hunt for particular atoms of worms, and build for themselves *carcasses* in which they may dwell, or whether they infuse themselves into bodies already made; but *also to consider that* there is no reason to be given[1] why they should make *bodies*, or why they should labour *at all;* for, while they are without a body, they fly about undisturbed by diseases, and cold, and hunger; since *it is* the body *that* rather labours under these maladies, (as well as from death,) and the soul suffers all evils from contact with it. But, nevertheless, let it be as advantageous as you please for these *souls* to make a body which they may enter, there seems, however, to be no means by which they may make it. *It is fair*, therefore, *to conclude that* souls do not make for themselves bodies and limbs. Nor yet is there a possibility, *as it appears*, that they can be infused into bodies perfectly-formed; for neither *under that supposition* can they be exactly fitted together; nor will their mutual-motions be carried on with sympathy.

Furthermore, why does violent rage[2] attend upon the sullen breed of lions, and craft upon *that of* foxes; and why is flight communicated to stags from their sires, and *why* does hereditary

[1] Reason to be given, *&c.*] Ver. 731. *Dicere suppeditat.* In ver. 733, *finis* is used for *mors*, as is frequently the case in Tacitus.

[2] Furthermore, why does violent rage, *&c.*] Ver. 741. The *twentieth argument*, directed against the Pythagoreans. If souls, as the followers of Pythagoras declare, remain immortal, and pass from body to body, how is it that, occasionally, the dispositions of animals have not been varied by a difference in the souls that have passed into them? How is it, for example, that the soul of a lion, passing into a stag, has never produced a lion-like stag, or that a human soul, passing into a horse, has never made a rational horse? Or, supposing human souls restricted to human bodies, how is it that the soul of a man, passing into a child, has never produced a mature-minded child? What reason can be given for the non-occurrence of such phenomena, but that no such transmigrations take place, and that in every individual body its own particular soul is generated grows, and decays?

fear add speed to their limbs? And as to other *qualities* of this sort, why do they all generate, in the body and temperament, from the earliest period of life, if *it be* not because a certain disposition of mind grows up together with each body from its own seed and stock? But if the soul were immortal, and were accustomed, *as the Pythagoreans think*, to change bodies, *surely* animals would *gradually alter, and* grow of mixed dispositions; the dog of Hyrcanian breed would often flee from the assault of the horned stag; the hawk, flying through the air of heaven, would tremble at the approach of the dove; men would lose their understanding, and the savage tribes of wild beasts become reasonable.

For that which *some* assert, *namely*, that an immortal soul is altered by a change of body, is advanced upon false reasoning; as that which is altered, loses its consistence, *and* therefore perishes; since the parts are transposed, and depart from their *original* arrangement; wherefore *the parts of the soul, under this hypothesis*, must also be subject to dissolution throughout the limbs; so that finally they may all perish together with the body.

But if they shall say that the souls of men always migrate into human bodies, I shall nevertheless ask, why a soul, from being wise *in a wise body*, should possibly become foolish *in the body of a fool;* why no child is *found* discreet, *or informed with a soul of mature understanding*, and why no foal of a mare is as skilful *in his paces* as the horse of full vigour? *why, I say, is this*, if it be not because a certain temper of mind grows up with each body from its own seed and stock? These *philosophers*, forsooth, will take refuge in the assertion,[1] that the mind becomes tender in a tender body; but if this be the case, you must admit that the soul is mortal, since, being so exceedingly changed in its *new* body, it loses its former vitality and powers.

Or in what way will the vigour of a soul,[2] strengthened in

[1] Take refuge in the assertion.] Ver. 769. "Confugient eo scilicet, ut dicant mentem tenerascere in corpore tenero." *Lambinus.* But if the soul is thus changed, it must be mortal, for whatever is immortal is unchangeable.

[2] Or in what way will the vigour of a soul, &c.] Ver. 770. Having hitherto fought with his heavy battalions, says Creech, he now brings forward his light troops, and adds six arguments of a less forcible character. I shall entitle these, *additional observations.* The

concert with each *particular* body, be able to reach *with it* the desired flower of mature age, unless it shall be joined to it in its first origin? Or with what motive does *the soul* go forth from limbs that are grown old? Does it fear to remain imprisoned in a decaying-carcass, *lest it should decay with it?* Or *is it afraid* lest its tenement, shaken with a long course of life, should *fall and* overwhelm it? But to that which is immortal, there are no *such* dangers.

Moreover, *to imagine* that souls stand ready[1] at the amorous intercourses, or parturitions, of beasts, *to enter into the young*, seems exceedingly ridiculous. *It appears too absurd to suppose* that immortal *beings*, in infinite numbers, should wait for mortal bodies, and contend emulously among themselves which shall be first and foremost to enter;—unless perchance *you suppose that* agreements have been made among the souls, that the first which shall have come flying *to the body*, shall have first ingress, and that they may *thus* have no contest in strength with one another.

Again, neither can a tree exist in the sky,[2] nor clouds in the deep sea; nor *can* fish live in the fields; nor blood be in wood, nor liquid in stones. It is fixed and arranged where every thing may grow and subsist; thus the nature *or substance* of the mind cannot spring up alone without the body, or exist apart from the nerves and the blood. Whereas if this could *happen*, the power of the mind might *at times* rather arise in the head or the shoulders, or the bottom of the heels, and might *rather* accustom itself to grow in any place, than to remain in the same man and in the same receptacle.[3] But since it seems fixed and appointed also in our own body, where the

first is, that if the soul were independent of the body, and not born with it, it would hardly desire to live in it from its infancy to its maturity, and, if not afraid to die with it, would hardly be always found to leave it at an advanced age.

[1] Moreover, *to imagine* that souls stand ready, *&c.*] Ver. 777. The *second additional observation*. That it is ridiculous to suppose that immortal beings should contend for mortal bodies.

[2] Again, neither can a tree exist in the sky, *&c.*] Ver. 785. The *third additional observation*. That, as every animal and vegetable production grows and dies in its proper place, so it is to be considered that the soul of a man grows and dies in and with his body.

[3] In the same receptacle.] Ver. 794. *In eodem vase*. He seems to refer to what he said above, ver. 141, as to the mind being situated *in mediâ regione pectoris*.

soul and the mind may subsist and grow up by themselves, it is so much the more to be denied that they can endure and be produced out of the entire body. For which reason, when the body has perished, you must necessarily admit that the soul, which is diffused throughout the body, has perished with it.

Besides, to join the mortal to the immortal,[1] and to suppose that they can sympathize together, and perform mutual *operations*, is to think absurdly; for what can be conceived more at variance *with reason*, or more inconsistent and irreconcilable in itself, than that that which is mortal, joined to that which is imperishable and eternal, should *submit to* endure violent storms *and troubles* in combination *with it?*

Further, whatsoever *bodies* remain eternal,[2] must either, as being of a solid consistence, repel blows, and suffer nothing to penetrate them, that can disunite their compact parts within; (*such* as are the primary-particles of matter, the nature of which we have shown above;) or they must be able to endure throughout all time, because they are free from blows, *or unsusceptible of them;* (as is a vacuum, which remains intangible, and suffers nothing from a stroke;) or *they must be indestructible for this reason*, that there is no sufficiency of space round about, into which their *constituent* substances may, as it were, separate and be dissolved; (as the entire universe is eternal, *inasmuch as* there is neither any space without it into which *its parts* may disperse; nor are there any bodies which may fall upon it, and break it to pieces by a violent concussion:) but, as I have shown, neither is the nature of the soul of a solid consistence, since with *all compound* bodies vacuum is mixed; nor is it like a vacuum *itself;* nor, again, are bodies wanting, which, rising fortuitously from the infinite *of things*, may overturn this frame of the mind with a violent tempest, or bring *upon it* some other kind of disaster and danger; nor, moreover, is vastness and profundity of space wanting, into which the substance of the soul may be dispersed, or may *otherwise* perish *and be* overwhelmed by any other kind of force. The gate of death, therefore, is not shut against the mind *and soul.*

[1] Besides, to join the mortal to the immortal, *&c.*] Ver. 801. The *fourth additional observation.* That the immortal cannot well consort with the mortal.

[2] Further, whatsoever *bodies* remain eternal, *&c.*] Ver. 807. The *fifth additional observation.* That for certain other reasons, (fully set forth in the text,) the soul cannot be imperishable.

But if perchance *the soul, in the opinion of any,* is to be accounted immortal the more on this account,[3] that it is kept fortified by things preservative of life; or because objects adverse to its safety do not all approach it; or because those that do approach, being by some means diverted, retreat before we can perceive what injury they inflict; the notion *of those who think thus* is evidently far removed from just reasoning. For besides that it sickens from diseases of the body, there often happens something to trouble it concerning future events, and keep it disquieted in fear, and harass it with cares; while *remorse for* faults, from past acts wickedly *and foolishly* committed, *torments and* distresses it. Join *to these afflictions* the insanity peculiar to the mind, and the oblivion of *all* things; *and* add, *besides,* that it is *often* sunk into the black waves of lethargy.

Death, therefore, is nothing, nor at all concerns us, since the nature *or substance* of the soul is *to be* accounted mortal. And as, in past time, we felt no anxiety, when the Carthaginians gathered on all sides to fight *with our forefathers, and* when all things under the lofty air of heaven, shaken with the dismaying tumult of war, trembled with dread; and *men* were uncertain to the sway of which *power* every thing human, by land and by sea, was to fall; so, when we shall cease to be, when there shall be a separation of the body and soul of which we are conjointly composed, it is certain that to us, who shall not then exist, nothing will by any possibility happen, or excite our feeling, not even if the earth shall be mingled with the sea, and the sea with the heaven.

And even if the substance of the mind, and the powers of the soul, after they have been separated from our body, *still* retain-their-faculties, it is nothing to us, who subsist *only as* being conjointly constituted by an arrangement and union of body and soul together. Nor, if time should collect our material-atoms after death, and restore them again as they are now placed, and the light of life should be given back to us, would it yet at all concern us that this were done, when the recollection of our existence has once been interrupted. And

[3] But if——immortal the more on this account, *&c.*] Ver. 830. The *sixth additional observation.* That if any think the mind unassailable by trouble and disease, which cause weakness and decay experience refutes them.

it is now of no importance to us, in regard to ourselves, what we were before;[1] nor does any solicitude affect us in reference to those whom a new age shall produce from our matter, *should it again be brought together as it is at present.* For when you consider the whole past space of infinite time, and *reflect* how various are the motions of matter, you may easily believe that *our* atoms have often been placed in the same order as *that in which* they now are. Yet we cannot revive that *time* in our memory; for a pause of life has been thrown between, and all the motions of *our atoms*[2] have wandered hither and thither, far-away from sentient-movements. For he, *among men now living,* to whom misery and pain[3] are to

[1] It is of no importance to us,——what we were before.] Ver. 864.

Et nunc nil ad nos de nobis attinet ante
Quei fuimus.

Supposing that the atoms of a man who lives now, existed ages ago in the same combination, that is, formed the same person, (of which he admits the possibility in ver. 870,) it is of no importance to him what he did or suffered then, since death has intervened and interrupted all consciousness and memory. *Interrupta semel quum sit repetentia nostris,* sc. *rebus* (ver. 863); as Wakefield and Forbiger have it; Lambinus and his followers read *nostra;* Lachmann gives *retinentia nostri.*

[2] All the motions of *our atoms, &c.*] Ver. 872, 873.

Inter enim jecta est vitaï pausa, vagèque
De 'rrârunt passim motus ab sensibus omnes.

"Morte enim vita fuit interrupta, motusque omnes, quibus jactata erant semina, erant à sensiferis motibus planè diversi." *Creech.*

Because a pause of life, a gaping space,
Has come betwixt, where memory lies dead,
And all the wandering motions from the sense are fled.
Dryden.

The atoms of the body at its dissolution, became mere brute senseless matter.

[3] For he, *among men now living,* to whom misery and pain, *&c.*] Ver. 874, *seq.* This passage, as given by Wakefield and copied by Forbiger, is one of the most unsatisfactory in Lucretius. In Lambinus's edition, and all others before Wakefield, the passage stood thus:

Debet enim, miserè quoi forte ægreque futurum est,
Ipse quoque esse in eo tum tempore, quom malè possit
Accidere: At quoniam mors eximit im [*for* eum,] prohibetque
Illum quoi possint incommoda conciliari
Hæc eadem in quibus et nunc nos sumus, ante fuisse;
Scire licet nobis nil esse in morte timendum.

This state of the text gave very clear and straightforward sense;

happen *after his death*, must himself exist *again, in his own identity*, at that very time on which the evil *which he is to suffer* may have power to fall; but since death, *which interrupts all consciousness, and prevents all memory of the past*, precludes *the possibility of* this; and *since the circumstance of* having previously existed, prohibits him *who lived before, and* with whom these calamities *which we suffer* might be asso-

but Wakefield, referring to his MSS., pronounced the passage to be infected with *mala scabies*, of which learned men should have been ashamed, and re-modelled the whole thus:

Debet enim misere est quoi forte ægreque futurum,
Ipse quoque esse in eo tum tempore, quoi male possit
Adcidere: id quoniam mors eximit, esseque prohibet
Illum, quoi possint incommoda conciliari
Hæc eadem, quibus è nunc nos sumus, ante fuisse;
Scire licet, &c.

Giving the following as the order and sense: "Quoniam mors eximit id, et (τὸ) fuisse antè prohibet illum, cui hæc incommoda possint conciliari, esse eadem (semina), è quibus nos nunc sumus (compositi)." According to this interpretation, there ought to be a comma after *Hæc*, but there is not, either in any edition of Wakefield, or in those of Eichstadt and Forbiger, who both copied him. As I have followed Wakefield's text, I have also followed, as the reader will see, his interpretation; but surely to make *ante fuisse* the nominative case to *prohibet*, to refer *hæc* to *incommoda*, and to couple *eadem* with the remote *esse*, can be satisfactory to few. Lachmann, the last editor, makes a transposition of a verse, which I cannot exhibit to the reader without transcribing a few previous lines:

Facile hoc adcredere possis,
Semina sæpe in eodem, ut nunc sunt, ordine posta
Hæc eadem, quibus è nunc nos sumus, ante fuisse:
Nec memori tamen id quimus repraehendere mente:
Inter enim jectast vitai pausa, vageque
Deerrarunt passim motus a sensibus omnes.
Debet enim, misere si forte aegreque futurumst,
Ipse quoque esse in eo tum tempore, cui male possit
Accidere: id quoniam mors eximit, esseque probet (*for* prohibet)
Illum cui possit incommoda conciliari,
Scire licet nobis, *&c.*

This may be partly right, but, if I may venture to express an opinion, I should say that no alteration will restore the passage to its genuine state, unless it be such as shall, by whatever method, join *conciliari* with *semina;* for *concilio*, *conciliatus*, and *concilium*, are words which Lucretius delights to apply to his atoms; and the phrase "*in*commoda conciliari" could hardly be regarded, in any but a comic author, (*malè conciliati* occurs in Plaut. Pseud. i. 2, 1,) otherwise than with suspicion.

ciated, from existing *a second time*, (*with any recollection of his other life*,) *as* the same *combination of* atoms of which we now consist, we may be assured that in death there is nothing to be dreaded by us; that he who does not exist, cannot become miserable; and that it makes not the least difference *to a man*, when immortal death has ended his mortal life, that he was ever born at all.

Whenever, therefore, you see a man express concern that it should be *his* lot after death either to putrify *on the ground* when his body is laid aside, or to be destroyed by flames, or by the jaws of wild beasts, you may know that *his mind* is not in a healthy state, and that some secret disquietude *as to his fate* is concealed in his breast, although he may himself deny that he believes any consciousness will remain to him after death. For, as I think, he does not make good what he professes, nor *speaks from conviction*, from which *he pretends to speak*;[1] nor withdraws and removes himself, *in thought*, wholly out of life, but, foolish as he is, makes something of himself still to survive. For when any one *of such a character* represents to himself, while alive, that birds and beasts will tear his body at death, he is seized with commiseration for himself; for neither does he at all distinguish himself *dead from himself living*, nor sufficiently withdraw himself from his exposed carcass; but supposes it to be *still* himself, and standing by it, *in imagination*, communicates to it a portion of his own feeling. Hence he is concerned that he was born mortal, nor reflects that in real death there will remain of him no other self, which, surviving, may mourn for him that he has perished, and, standing upright, may lament that he, lying down, is torn in pieces or burnt to ashes. For if it is an evil at death, to be *ill*-treated by the jaws and teeth of wild beasts, I do not see how it can be otherwise than unpleasant *for a man*, being laid on a *funeral*-pyre, to burn in hot flames, or, placed in honey, to be suffocated,[2] or to grow stiff with cold, when he is lying on the highest flat of a gelid rock, or

[1] *From conviction*, from which *he pretends to speak*.] Ver. 889. *Non—dat quod promittit et unde.* "Unde promiserat se daturum." *Wakefield.* He does not speak from sincere belief, as he professes to speak. —A little below, "foolish as he is" answers to *inscius*, which Creech, I think rightly, interprets *stultus*.

[2] Placed in honey, to be suffocated.] Ver. 904. *In melle situm suffocari.* A mode of burial among the ancients. Xenophon (Hel-

to be pressed down *and* overwhelmed with the weight of superincumbent earth.

"For now," men say, "your pleasant home shall no more receive you, nor your excellent wife; nor shall your dear children run to snatch kisses, and touch your breast with secret delight. You will no more be able to be in flourishing circumstances, and to be a protection to your friends. Unhappily, one adverse day has taken from you, unfortunate *man*, all the numerous blessings of life." In such remarks they do not add this, "Nor now, moreover, does any regret for those things remain with you."[1] Which *truth* if men would well consider in their thoughts, and adhere to it in their words, they would relieve themselves from much anxiety and fear of mind. "You, for your part," *says a mourner over a corpse*, "laid to sleep in your bed, will so remain as you are for whatever time is to come, released from all distressing griefs; but we, *standing* near you, shall inconsolably lament you reduced to ashes on the awful pyre; and no *lapse of* time shall remove our unfading sorrow from our hearts." Of him, however, *who makes such lamentations*, we may ask this *question*, "If the matter *of death* is reduced to sleep and rest, what can there be so bitter *in it*, that any one should pine in eternal grief *for the decease of a friend?*"

This also is often a practice among men, that when they have sat down *to a feast*, and hold their cups in their hands, and overshadow their faces with chaplets, they say *seriously and* from their hearts, "This enjoyment is but short *to us* little men; soon it will have passed; nor will it ever hereafter be possible to recall it." As if at their death this evil were to be dreaded above all, that parching thirst should scorch and burn up the wretches, or an *insatiable* longing for some other thing should settle on them. *Yet how different will be the fact!* Since not even when the mind and body are *merely* at rest together in sleep, will any one feel concern for himself and his life; for, for our parts, our sleep might thus be eternal; nor does any care for ourselves affect us; and yet, at that season, the atoms, throughout our limbs, withdraw to no great distance from sensible motions,[2] and the man who is suddenly-

len. v. 3, 19) mentions that Agesipolis, one of the Spartan kings, was buried in this way.

[1] Remain with you.] Ver. 915. *Insidet unà.*

[2] Withdraw to no great distance from sensible motions.] Ver. 937.

roused from sleep *quickly* recollects himself. Death, then, we must consider to be of far less concern to us, if less can be than that which we see to be nothing. For a greater separation of the atoms of matter takes place in death, nor does any man awake when once the cold pause of life has overtaken him.

Furthermore, if UNIVERSAL NATURE should suddenly utter[1] a voice, and thus herself upbraid any one of us: "What mighty cause have you, O mortal, thus excessively to indulge in bitter grief? Why do you groan and weep, *at the thought of* death? For *if* your past and former life has been an *object* of gratification to you, and all your blessings have not, as if poured into a leaky vessel, flowed away and been lost without pleasure, why do you not, O unreasonable man, retire like a guest satisfied with life, and take your undisturbed rest with resignation? But if those things, of which you have had the use, have been wasted and lost, and life is offensive to you, why do you seek to incur further trouble,[2] which may all again pass away and end in dissatisfaction? *Why* do you not rather put an end to life and anxiety? For there is nothing further, which I can contrive and discover to please you; every thing is always the same. If your body is not yet withered with years, and your limbs are not worn out *and* grown feeble, yet all things remain the same, *even* if you should go on to outlast all ages in living; and still more *would you see them the same*, if you should never come to die." What do we answer *to this*, but that Nature brings a just charge *against us*, and sets forth in *her* words a true allegation?

But would she not more justly reproach and upbraid, in severe accents, him who, being miserable unreasonably, deplores death? "Away with thy tears, wretch," *she might well say*, "and forbear thy complaints." But if he *who is* older, and more advanced in years, complain, *she may retort thus:* "After having been possessed of all the most valuable things of life, thou pinest and wastest away *with age*. But, because thou always desirest what is absent, and despisest present *ad-*

Haudquaquam——longè ab sensiferis——motibus errant. Compare ver. 873. *Deerrârunt passim motus ab sensibus omnes.*

[1] If UNIVERSAL NATURE should suddenly utter, &c.] Ver. 944. "So Cicero, in his 1st Oration against Catiline, introduces his Country speaking; and Plato the Laws in his Apology." *Lambinus.*

[2] Incur further trouble.] Ver. 954. *Amplius addere—mali.* Others read *malè*, which, taken with *pereat*, makes better sense.

vantages, life has passed from thee imperfect and unsatisfactory, and death has stood by thy head unawares, and before thou canst depart content and satisfied with thy circumstances. Now, however, resign all things unsuitable to thy age, and yield at once, with submissive feelings, to that which is stronger *than thou;*[1] *for* it is necessary." *And* justly, as I think, would she address *him;* justly would she upbraid and reproach him; for that which is old, driven out by that which is new, always retires, and it is indispensable to repair one thing out of another; nor is any man consigned to the gulf *of Erebus*, or black Tartarus, *but allowed to retire peaceably to a dreamless sleep.* The matter, *of which thou art made*, is wanted *by nature* that succeeding generations may grow up from it; all which, however, when they have passed their *appointed term of* life, will follow thee: and so have *other generations*, before these, fallen *into destruction; and other generations*, not less *certainly* than thyself, will fall. Thus shall one thing never cease to rise from another; and *thus* is life given to none in possession, *but* to all *only* for use.

Consider, also, how utterly unimportant to us was the past antiquity of infinite time, *that elapsed* before we were born. This, then, nature exhibits to us as a specimen of the time which will be again after our death. For what does there appear terrible in it? Does any thing seem gloomy? Is not *all* more free from trouble than any sleep?

And of the souls likewise, whatever are said to be in the profundity of Acheron, all *the sufferings* happen to ourselves, *not in death, but* in life. Tantalus, torpid with vain terror, does not (as it is reported) fear the huge rock impending over him in the air; but *such terror* rather *dwells with us* in life; a groundless fear of the gods oppresses mortals, and they dread that fall which fortune may assign to each.

Nor do vultures penetrate into Tityus, lying in Hades; nor, however they might search[2] in his huge breast, would

[1] Yield at once, with submissive feelings, to that which is stronger *than thou.*] Ver. 975. *Æquo animoque, agedum, magnis concede.* Wakefield considers that *magnis* means persons; Orellius (in his *Eclogæ Poet. Latinorum*) thinks that it is the neuter plural, but supposes the meaning to be, *depart* from great things, i. e. pleasures or enjoyments. I think that "dire necessity's supreme command" is intended.

[2] Nor, however they might search, *&c.*] Ver. 998. *Nec quid sub*

they be able to find, through infinite time, any thing *to devour*, of however vast an extent of body he may be, *even though it be* such as may cover, with its limbs outspread, not merely nine acres, but the orb of the whole earth; nor yet would he be able to endure eternal pain, or to supply food incessantly from his own body; but HE is a Tityus among us, whom, lying under *the influence of* love, the vultures *of passion* tear, and anxious disquietude devours; or whom cares, with any other unbecoming-feeling, lacerate.

A Sisyphus, likewise, is before our eyes in life, who sets his heart[1] to solicit from the people the fasces and sharp axes, and always retires repulsed and disappointed. For to seek power, which is empty, nor is ever granted, and constantly to endure hard labour in *the pursuit of* it, this is to push with effort the stone up the hill, which yet is rolled down again from the summit, and impetuously seeks the level of the open plain.

To feed perpetually, moreover, an ungrateful nature, and to fill *it* with good things, and never to satisfy *it; a kindness* which the seasons of the year do to us, as they come round *in their course*, and bring their fruits and various charms; whilst we, notwithstanding, are never satisfied with the blessings of life; this is, I think, that which they relate of the damsels in the flower of their youth, *that they* pour water into a punctured vessel, which, however, can by no means be filled.

But also Cerberus and the Furies *are mentioned*, and privation of light, *and* Tartarus, casting forth fires from its jaws, *objects* which are no where, nor indeed can be; but there is, in life, an eminent dread of punishment for enormous crimes; *there is* the prison, the reward of guilt, and the terrible precipitation, of those *who are condemned*, from the rock; *there are* stripes, executioners, the wooden-horse,[2] pitch, *hot* iron, fire-brands; and though these may be absent, yet the mind,

magno scrutentur pectore. Observe that the *quid* is for *quantumcunque*, or *utcunque.*

[1] Sets his heart.] Ver. 1010. *Imbibit.* "*Imbibit petere* is *induxit in animum petere.*" *Lambinus.*

[2] Stripes, executioners, the wooden-horse, &c.] Ver. 1030. *Verbera, carnifices, robur, pix, lamina, tædæ.* By *robur* is meant the machine called *equuleus*, or *little horse*, on which slaves were placed to be tortured. By *tædæ* is signified either firebrands, or lighted torches, applied to the person, or wood to which the sufferer was fixed, and to which Juvenal, i. 155, alludes.

conscious of *evil* deeds, feeling dread in anticipation, applies *to itself* stings, and tortures *itself* with scourges, nor sees, in the mean time, what end there can be of its sufferings, nor what can be the limit of its punishment, and fears rather lest these same tortures should become heavier at death. Hence, in fine, the life of fools becomes, as it were, an existence in Tartarus.

This *reflection*, likewise, you may at times address to yourself. "Even the good Ancus," *as Ennius expresses it*, "has deserted the light with his eyes,"[1] who was much better in many things than thou, worthless *man!* Besides, many other kings, and rulers of affairs, who swayed mighty nations, have yielded up the ghost. *And what am I better than they?*

He, even, himself, who formerly paved a road over the vast sea, and afforded a way to his legions to pass through the deep, and taught them to walk on foot through salt gulfs, and despised the murmurs of the ocean, trampling on it with his cavalry; *even he, I say*, the light *of life* being withdrawn from him, poured forth his soul from his dying body.

Scipio, the thunderbolt of war, the dread of Carthage, gave his bones to the earth, just as if he had been the meanest slave.

Add *to these*, the inventors of the sciences and the graces; add the associates of the muses; over whom the unrivalled Homer having obtained the supremacy, has been laid to rest in the same sleep with others.

When mature old age, too, gave Democritus warning that the mindful motions[2] of his intellect were languishing, he himself, of his own accord, offered his head to death.

Epicurus himself, having run through his light of life,[3] is dead; Epicurus, who excelled the human race in genius, and threw all into the shade, as the ethereal sun, when rising, *obscures* the stars.

Wilt thou, then, hesitate, and grudge to die, in whom, even while living and seeing, life is almost dead? *Thou*, who

[1] Even the good Ancus——has deserted the light with his eyes.] Ver. 1038. *Lumina sis oculis, &c.* These words were taken by Lucretius from Ennius, and are given by Festus under *sos*.

[2] Mindful motions.] Ver. 1053. *Memores motus.*

[3] Having run through his light of life.] Ver. 1055. *Deourso lumine vitæ.* "A metaphor from the sun," says Wakefield, "who runs his daily course of light."

wastest the greater part of existence in sleep, and snorest waking, nor ceasest to see dreams, and bearest a mind disturbed with empty terror; nor canst thou, frequently, discover what evil affects thee, when, stupified *and* wretched, thou art oppressed with numerous cares on all sides, and, fluctuating with uncertain thought, wanderest in error?

If men could feel, as they seem to feel, that there is an oppression on their minds, which wearies them with its weight, and could also perceive from what causes it arises, and whence so great a mass, as it were, of evil exists in their breasts, they would not live in the manner in which we generally see them *living; for we observe them* uncertain what they would have, and always inquiring *for something new;* and changing their place, as if *by the change* they could lay aside a load.

He, who has grown weary of remaining at home, often goes forth from his vast mansion, and suddenly returns, inasmuch as he perceives that he is nothing bettered by being abroad. He runs precipitately, hurrying on his horses, to his villa, as if he were eager to carry succour to an edifice on fire; but, as soon as he has touched the threshold of the building, he yawns, or falls heavily to sleep, and seeks forgetfulness *of himself*, or even with *equal* haste goes back and revisits the city.

In this way each man flees from himself; but *himself*, as it *always* happens, whom he cannot escape, and *whom he still* hates, adheres to him in spite *of his efforts; and* for this reason, that the sick man does not know the cause of his disease, which if every one could understand, he would, in the first place, having laid aside all other pursuits, study to learn the NATURE OF THINGS; since *in such inquiries* the state of eternity, not of one hour *merely*, is concerned; *a state* in which the whole age of mortals, whatever remains after death, must continue.

Besides, why does *so* pernicious *and* so strong desire of existence compel us to remain anxious in uncertain perils? A certain bound of life is fixed to mortals; nor can death be avoided, *or can we exempt ourselves* from undergoing it.

Moreover, we are continually engaged and fixed in the same occupations; nor, by the prolongation of life, is any new pleasure discovered. Yet that which we desire, seems,

while it is distant *in the future*, to excel *all* other objects; *but* afterwards, when it has fallen to our lot, we covet something else; and thus a uniform thirst of life occupies us, longing earnestly *for that which is to come;* while what fate the last period may bring us, or what chance may throw in our way, or what death awaits us, still remains in uncertainty.

Nor, by protracting life, do we deduct a single moment from the duration of death; we cannot diminish aught[1] *from its reign, or cause* that we may be for a less period sunk in non-existence. How many generations soever, therefore, we may pass in life, nevertheless that *same* eternal death will still await us. Nor will he be less long out of being,[2] who terminated his life under this day's sun, than he who died many months and years ago.

[1] We cannot diminish aught.] Ver. 1101. *Nec delibrare valemus.* "Delibrare" is, to strip bark from a tree.

[2] Nor will he be less long out of being, &c.] Ver. 1105. *Nec minus ille diu jam non erit,——et ille.* It is requisite to translate *et* (like *ac* or *atque*) by *than*.

BOOK IV.

ARGUMENT.

After an exordium, (ver. 1—25,) in which Lucretius speaks of his subject, and his mode of recommending it, he proceeds to treat of the images of Epicurus, by which the senses are excited, ver. 26—45. He shows that images, of exquisite subtlety, are emitted from the surfaces of objects, which are for the most part unseen, but which are observed when reflected from a mirror, or any smooth surface, ver. 46—108. Besides these images detached from bodies, there are others spontaneously generated in the air, ver. 109—216. He demonstrates that vision is produced by the impact of images on the eyes, ver. 217—239. He then solves various questions relating to images in mirrors, and to light and shade, ver. 240—379. He shows that the senses may be trusted, though some would question their evidence; and that false opinions arise from false reasoning about the testimony of the senses, ver. 380—469. Pursues the subject more fully, refuting the Academics, ver. 470—523. Proceeding to the other senses, he asserts that *voice* and *sounds* are of a corporeal substance, and discourses on the nature and formation of the voice, ver. 524—565. Speaks of the diffusion, reverberation, and penetration of sounds, ver. 566—617. Treats of *taste* and *odour*, and their diversities, ver. 618—724. Shows that imagination and thought are produced by means of images, which penetrate the body through the senses, ver. 725—759. Explains the nature of dreams, and why a man thinks of that on which he wishes to think, ver. 760—808. Shows how we are often deceived by images, ver. 809—823. Proceeds to prove that the organs of the body were produced before the use of them was discovered; that they were not *designed* for use, but that it was found out, after they were formed, that they *could* be used, ver. 824—878. That motion in animals arose from the motions of images, ver. 879—908. He then speaks more fully of sleep and dreams, of which he suggests various causes, ver. 908—1035. Of love, desire, and their influence, ver. 1036—1283.

I RANGE over the trackless regions[1] of the Muses, trodden before by the foot of no *poet*. It delights me to approach the untasted fountains, and to drink; and it transports me to pluck the fresh flowers, and to obtain a distinguished chaplet for my head from those *groves* whence the Muses have hitherto veiled the temples of no one. In the first place, because I give instruction concerning mighty things, and proceed to free the mind from the closely-confining shackles of religion: in the next place, because I compose such lucid verses concerning so obscure a subject, affecting every thing with the grace of poetry. Since such *ornament*, also, seems not *unjustifiable or* without reason. But as physicians, when they attempt to give bitter wormwood to children, first tinge the rim round the cup with the sweet and yellow liquid of honey, that the age of childhood, *as yet* unsuspicious, may find the lips deluded, *and* may in the mean time drink of the bitter juice of the wormwood, and, though deceived, may not be injured, but rather, recruited by such a process, may recover strength: so now I, since this argument seems, in general, too severe *and forbidding* to those by whom it has not been handled, and *since* the multitude shrink back from it, was desirous to set forth my chain-of-reasoning to thee, O *Memmius*, in sweetly-speaking Pierian verse, and, as it were, to tinge it with the honey of the Muses; if perchance, by such a method, I might detain thy attention upon my strains, until thou gainest a knowledge of the whole NATURE OF THINGS, and perceivest the utility *of that knowledge*.

But since I have demonstrated[2] of what nature the primor-

[1] I range over the trackless regions, *&c.*] Ver. 1. *Avia Pieridum peragro loca*, &c. The first twenty-five verses of this book are taken from book i. 925. At the end of the paragraph, ver. 25, I have given "utility *of that knowledge*," with Creech, who has "istiusque cognitionis utilitatem."

[2] But since I have demonstrated, *&c.*] Ver. 26. Having in the preceding books discoursed of atoms, the generation of things from them, and the nature of the soul, he now proceeds to treat of *rerum simulacra*, the images of things, which the Epicureans supposed to be perpetually flying off from the surfaces of bodies. If these images presented themselves to us entire and undistorted, we beheld true representations of the objects from which they came; if they were broken, or inverted, or mixed one with another, we then saw monsters, such as Centaurs or Chimæras. See ver. 736, *seq.* of this

dial-atoms of all things are, and with how different figures distinguished they fly spontaneously[1] *through space*, actuated by motion from all eternity, and in what manner all things may severally be produced from them; and since I have shown what is the nature of the soul, and from what substances it derives its vigour in-its-connexion with the body, and in what way, being separated *from it*, it returns to its original elements, I shall now begin to treat of *another subject*, which is of the greatest concern to these inquiries, *namely*, that there exist those *shapes* which we call IMAGES OF THINGS; *shapes* which, being separated, like membranes, from the surface of the bodies of objects, flit hither and thither through the air; and *which* same *shapes*, not only occurring to us when awake, startle our minds, *but* also *alarm us* in sleep, when we often seem to behold strange forms and spectres of the dead, that frequently, when we are torpid in slumber, rouse us with horror: *I say that these are images thrown off the bodies of objects*, that we may not, by any possibility, suppose that souls escape from Acheron, or that shades *of the dead* hover about among the living, or that any portion of us can be left after death, when, after the body, and substance of the soul, have been disunited, they have suffered dissolution into their respective elements.

I affirm, then, that thin shapes and figures of objects are detached from *those* objects; from the surface, *I mean*, of their bodies; *shapes* which are to be designated, as it were, their pellicle or bark, because *each* image bears the likeness and form of that object, whatsoever *it be*, from whose surface it *is* detached *and* seems to wander[2] *through the air*.

book. As to the spectres of the dead, Epicurus and Lucretius supposed them to be pellicles thrown off from corpses, which were so thin as to pass through coffins and all other obstructions, and which, though we might not notice them amidst business and bustle, we became liable to perceive in solitude and retirement. It was such a spectre that Brutus saw before the battle of Pharsalia. Dreams were produced, they thought, by means of these subtle images penetrating to the body during sleep, and coming in contact with the soul through the surface of the body. See ver. 728, *seq.* See Diog. Laert. x. 46; Cic. de Fin. i. 7; Macrob. Sat. vii. 14. Aul. Gell. v. 16. In ver. 30—32, I have rendered *esset, vigeret, rediret*, as present tenses.—Lucretius had given notice that he should enter on this subject, in book i. 133.

[1] Fly spontaneously, *&c.*] Ver. 28. See iii. 33.

[2] Seems to wander.] Ver. 50. *Cluet—vagari.* Fertur licitur.

This *fact* any one, with however dull an intellect, may understand from what follows. In the first place, since many bodies, among objects manifest *before our eyes*, send off, when disunited, *various* particles *from their substance*, partly diffused *and subtle*, as wood discharges smoke and fire heat, and partly more close and condensed, as whenever grasshoppers in summer lay aside their thin coats, and when calves, at their birth, cast the membrane[1] from the surface of their bodies, and, likewise, when the slippery snake puts off his garment among the thorns, (for we frequently see the briers gifted with their spoils): since these things, *I say*, take place, a thin image may naturally be detached[2] from bodies; *that is to say*, from the extreme surface of bodies. For why those *substances which are more dense*, should more *readily* fall away and recede from bodies, than these *shapes* which are *light and* subtle, it is quite impossible to tell; especially when there are numberless minute particles on the surface of objects, which may be thrown off in the order in which they have lain, and keep the outline of their figure; and *this so* much the more easily, as, being *comparatively* few, and placed on the outmost superficies, they are less liable to be obstructed.

For, assuredly, we not only see many *particles* discharge *themselves*, and become detached, as we said before, from the middle and inward *parts of bodies*,[3] but *we observe* also colour itself frequently *fly off* from their surfaces; and this *effect* yellow, red, and purple curtains[4] publicly exhibit, when, stretched across the vast theatres, displayed over the poles and beams, they fluctuate with a tremulous motion; for they then tinge the assembly on the benches, and the whole face of the scene beneath, *the persons* of senators, matrons, and gods, and

[1] Calves, at their birth, cast the membrane, *&c.*] Ver. 57. "The alantois, formed for the purpose of containing the urine of the fœtus prior to its birth." *Good.*

[2] May naturally be detached.] Ver. 61. *Debet mitti.* Comp. v. 83.

[3] From the middle and inward *parts of bodies.*] Ver. 71. *Ex alto penitusque.* Literally, *from the depth and (from) within.*

[4] Yellow, red, and purple curtains.] Ver. 73, *seq.* *Lutea, russa, et ferrugina.* "Displayed over the poles and beams," *Per malos vulgata trabesque.* *Malus* here signifies a pole for supporting a curtain: as in Liv. xxxix. 7, Ludis Romanis——malus in circo instabilis in signum Pollentiæ procidit. The Epicureans thought that the colour actually passed off in thin pellicles from the curtains.—"May naturally send off," (ver. 83,) *debent mittere:* see ver. 61.

vary them with their own colour; and the more the walls of the theatre are shut in around, so much the more all these objects within, suffused with the hue *of the curtains*, (the light of day being affected with it,) smile *and look gay*. When the curtains, therefore, send off colour from their surface, all *other* objects may naturally send off subtle images; for *it is* from the superficies *that* both emit. There are therefore, *we must believe*, certain outlines of figures, which, formed of a subtle texture, fly abroad, and which *nevertheless* cannot, *at the time that they are* separated *from bodies*, be individually discerned *by the eye*.

Besides, *if* all odour, smoke, vapour, and other similar substances, fly off from bodies in a scattered manner, *it is* because, while rising from within, they are, as they issue forth, broken by winding passages; nor are there any direct openings of the orifices, by which they strive, as they spring up, to fly out.[1] But, on the other hand, when a thin coat of colour from the surface is thrown off, there is nothing that can scatter it, since, being placed on the very superficies, it lies in readiness to fall off unbroken.

Moreover, whatever images appear to us in mirrors, in the water, and in any bright object, their substance, since they are distinguished by a form similar to their objects, must necessarily consist[2] in forms thrown off *from those objects*. For why those *grosser* consistences, *as smoke and vapour*, which many bodies obviously send forth from their substance, should more *readily* detach themselves, and recede from objects, than those which are thin *and subtle*, there is no possibility of telling. There are, therefore, *we may believe*, thin images of the forms *of bodies*, and unlike *those of a grosser nature*, which, though no one can see them severally *thrown off*, yet, *being thrown off, and* repelled by successive and frequent reflections[3] from the flat surface of mirrors, *strike the eye, and* pro-

[1] By which they strive——to fly out.] Ver. 92. *Quà contendunt exire coorta*. In Forbiger *quæ* is misprinted for *quà*.

[2] Their substance—must necessarily consist.] Ver. 99. *Esse eorum*. *Esse* is put substantively for *οὐσία*, or *essence*.

[3] Repelled by successive and frequent reflections.] Ver. 105.

Assiduo crebroque repulsu
Rejectæ, reddunt speculorum ex æquore visum.

"The representation of himself, which a man sees in a glass, is not,

duce sight. Nor can *shapes of bodies* be imagined, by any other means, to be so accurately preserved, as that forms corresponding to each should be represented to us.

Give me now your attention *further, and* learn of how subtle a nature *or substance* an image consists. *You may imagine this subtlety*, in the first place, inasmuch as the primordial-atoms *of things* are so far below our senses, and so exceedingly less than *those smallest objects* which our eyes first begin to be unable to distinguish.[1] But that I may make plain to you how exquisitely diminutive the primary-particles of all bodies are, listen *to what I shall state* in *these* few *observations.*

First, there are some animals so exceedingly minute, that the third part of them can by no possibility be seen.[2] Of what size can any internal part of these *creatures* be imagined to be? What is the globule of their heart, or of their eye? What are their members and joints? How extremely diminutive must they be! What, moreover, *is the size of* the several atoms of which their vital-principle, and the substance of their soul, must necessarily consist? Do you not conceive how subtle and minute they must be?

Contemplate, besides, whatever bodies exhale from their substance a powerful odour, *as* panacea, bitter wormwood, strong-smelling southernwood, and pungent centaury, any one of which if you shall happen to shake gently, *and imagine how small must be the atoms that affect your nostrils*, you may

in the opinion of Epicurus, one, but many; produced by a quick succession of images passing off from the body, and striking against the glass, whence they are reflected to the eye; the rapidity of the process making the many appear as one." *Lambinus.* This will be seen more clearly as the reader proceeds. Epicurus's doctrine of images is one of the weakest points in his philosophy.

[1] Our eyes first begin to be unable to distinguish.] Ver. 112 *Quæ primum oculi cæptant non posse tueri.* He means the extreme points, *summa cacumina*, of small objects, which our sight cannot command. See i. 593.—"Make plain to you," (ver. 113,) *conformem;* a word of Wakefield's selection, from two or three manuscripts, for *confirmem*, the reading of Lambinus. Wakefield interprets it, *to make manifest, as if by forms.*

[2] That the third part of them can by no possibility be seen.] Ver. 116. *Ut horum Tertia pars nullâ possit ratione videri.* "That is, any considerable part, as in Rev. viii. 7, The third part of the trees, the sea, &c." *Preigerus.*

then the better understand that numerous images of bodies, *composed of still smaller atoms*, may flit about in various ways, without force *or weight*, and without impression on the senses.[1] [Of which *bodies* how fine a part the image is, there is no one can express, or give the due estimation *of it* in words.]

But lest perchance you should think, that those images of objects alone wander abroad, which fly off from the objects *themselves*, there are *others*, also, which are produced spontaneously, and are combined *of* themselves in this sky which is called the air; *those images, namely*, which, fashioned in various shapes, are borne along on high, and, being soft *in their contexture*, never cease to change their figure, and to metamorphose *themselves* into the outlines of forms of every sort. This we sometimes see the clouds do, when *we observe them* thicken on high, and dim the serene face of the firmament, *yet* soothing the air, *as it were*, with their motion;[2] as, frequently, the faces of giants seem to fly *over the heaven*, and to spread their shadows far and wide; sometimes huge mountains, and rocks *apparently* torn from *those* mountains, seem *now* to go before the sun, *now* to follow close behind *him;* then *some* monster seems to drag forward, and to obtrude, other stormy clouds.

Understand, now, with how easy and expeditious a process *these images* are formed, and perpetually flow off, and pass away from objects. For there is always on the surface of bodies something redundant, which they may throw off; and this *redundancy, or outside form*, when it comes in contact with certain objects, as, for example, a *thin* garment,[3] passes

[1] Without force—and without impression on the senses.] Ver. 127. *Nullâ vi, cassaque sensu.* "Which move with so small a force that they cannot affect the organs or senses." *Creech.* Between ver. 125 (ending with *ciebis*, which is Lambinus's conjecture for *duobus*) and ver. 126, Lachmann very reasonably considers that there is a *hiatus*. The passage in crotchets is thought spurious by Wakefield.

[2] Soothing the air—with their motion.] Ver. 139. *Aera mulcentes motu.* "By the variety of their shapes exhilarating the air, as it were, and diffusing over it a certain pleasantness." *Wakefield.* The reader will remember the passage in Hamlet, "Very like a whale," &c.

[3] As, for example, a *thin* garment.] Ver. 148. *Ut in primis vestem.* "As ἤδη, ἄντικα, jam, &c. This is worthy of notice, for it means *exempli gratiâ.*" *Faber.* A little below (ver. 152) *in primis* occurs again; where, however, I have taken it, with Creech, in the sense of *præcipuè*.

through it; but, when it strikes against rough rocks, or the substance of wood, is at once broken into fragments, so that it can present no image. But when *objects* which are bright and dense have stood in its way, as, above all, a looking-glass, neither of these *effects* happens; for neither can *images* pass through it like a garment, nor be divided *into parts* before the smooth surface has succeeded in securing its entireness.[1] From this cause it happens that images abound among us; and, however suddenly, at any time whatsoever, you may place a mirror opposite *an object*, the image *of it* appears; so that you may conclude that filmy textures of objects, and subtle shapes, are perpetually flying off from the superficies of every body. Many images are therefore carried off in a short space, so that the production of these forms must naturally be thought rapid.[2] And as the sun must send forth many rays in a short time, that all places may be constantly full of light, so, by a like process, many different images of bodies must necessarily be carried off from those *bodies* in a moment of time in all directions round about; since, whatsoever way we turn the mirror to the figures *of objects*, the objects are represented in it of a correspondent form and colour.

Besides, *at times* when the state of the sky has just before been clear as possible, it becomes, with extreme suddenness, *so* frightfully overclouded on all sides, that you might think that all the darkness had left Acheron, and filled the immense vault of heaven; so *formidably*, when *such a* gloomy night of clouds has arisen, does the face of black terror hang over *the earth* from above. Of which *clouds, thin as they are*, how thin a portion their image must be, *as viewed in a reflecting surface*, there is no man that can express, or give in words such an estimation *as would be conceivable.*

And now attend *further, and* with how swift a motion images are borne along, and what activity is given to them as they swim across the air, *so* that, to whatever part they move, each with *its* several tendency, a short time *only* is spent in a

[1] Has succeeded in securing its entireness.] Ver. 154. *Meminit lævor præstare salutem.* More literally, *has remembered to secure its safety.* As to *præstare*, comp. iii. 215, 221.

[2] So that the production of these forms must naturally be thought rapid.] Ver. 161. *Ut meritò celer his rebus dicatur origo.* "May justly be called rapid." This, like the lines on the activity of thought, (iii. 183,) seems very tame.

long distance, I will *proceed to* explain, *though* rather, *if possible*, in agreeably-sounding verses than in many;[1] as the short melody of the swan is better than the croak of cranes swept-afar among the ethereal clouds *driven by* the south-wind.

In the first place, we have constant means of observing *how* swift *in their motion those* bodies which are light, and *which* consist of minute particles, are. Of which kind is the sun's light, and his heat; for this reason, that they are composed of minute primary-atoms, which are, as it were, struck out, and make no difficulty to pass through the interval of air, driven on by a succeeding stroke; for *the place of* light *passing on* is instantly supplied by *other* light, and brightness is, as it were, propelled by successive brightness.[2] Wherefore images must, in like manner, be able to pass through an inexpressible space in a moment of time; in the first place, because there is *always* some slight impulse[3] at a distance behind them, which may carry them forward and urge them on; and secondly, because they are sent forth formed with so subtle a texture, that they can easily penetrate any substances whatsoever, and, as it were, flow through the intervening-body of air.

Besides, if those atoms of bodies which are sent forth from within,[4] and from the central *portion of them*, as the light and heat of the sun, are seen, gliding over the whole space of the

[1] In agreeably-sounding verses than in many.] Ver. 181. *Suavidicis potius quàm multis.* "Having regard to the nature of the subject," says Wakefield, "which has been so treated in prose as to offend and weary the reader." The *croak of cranes among the clouds* seems to have been a proverbial expression: see Lambinus, who quotes a Greek epigram of Antipater Sidonius *in Erinnam*, containing a similar observation on the chattering of daws. The lines occur again, ver. 910, *seq.*

[2] Successive brightness.] Ver. 191. *Protelo fulgure.* "Protelum" is here used as an adjective; in the only other place where Lucretius has it, (ii. 532,) it is a substantive. It is of uncertain derivation; Vossius makes it from *pro* and *telum*, indicating a succession like that of a number of darts thrown forward one after another.

[3] Some slight impulse, *&c.*] Ver. 194. *Parvola causa Est procul à tergo.* Creech interprets *causa* by *sufficiens vis*, but would have *parvola* in the acc. case, agreeing with *simulacra* understood. In this notion I do not think him right. Faber would read *plurima causa.* What *cause* or *force* impels images, or how it is produced, Lucretius does not explain.

[4] Forth from within.] Ver. 200. *Penitus—ex alto.* Comp. ver. 71.

air, to diffuse themselves abroad in a moment of time, and to fly through sea and land, and to flood the heaven which is above, where they are borne along with such rapid lightness, what *shall we say of those particles*, then, which *lie* ready on the outmost surface of bodies? Do you *not* conceive how much quicker and farther they ought to go, when they are *once* thrown off, and *when* nothing delays their progress? And do you *not* feel certain that they should fly over a much greater distance of space in the same time in which the light of the sun traverses the heaven?

This also seems to be an eminently fitting example *to show* with how swift a motion the images of things are borne along, *namely*, that as soon as a bright-surface of water is placed in the open air, when the clear heaven is shining with stars, the radiant constellations of the sky immediately correspond in the water. Do you now understand, then, in what a moment of time *this* image descends from the regions of the air to the regions of the earth? From which cause, *however* wonderful,[1] you must necessarily admit, again and again, *the existence of* bodies which strike the eyes and excite our vision, and flow with a perpetual issue from certain substances; as cold from rivers, heat from the sun, spray from the waves of the sea, *which is* the consumer of walls round the shore; nor do various voices cease to fly through the air;[2] moreover the moisture, *so to speak*, of a salt taste, comes often into the mouth, when we are walking near the sea; and, *again*, when we look at diluted wormwood being mixed, a bitterness affects *our palate*. So evidently a certain substance is borne rapidly away from all bodies, and is dispersed in all directions

[1] From which cause, *however* wonderful, *&c.*] Ver. 217.

Quâ re etiam atque etiam mirâ fateare necesse est
Corpora, quæ feriant oculos visumque lacessant,
Perpetuòque fluant certis ab rebus obortu—

This is Wakefield's reading, which Forbiger retains. *Lambinus* and *Creech*, instead of *mirâ*, have *mitti;* which verb, or one similar, is sadly wanted. But Wakefield had the hardihood to say that it might well be dispensed with, and that we may say *fateri corpora* as *fateri peccata!*

[2] Voices cease to fly through the air.] Ver. 222. *Nec variæ cessant voces volitare per auras.* Faber observes that this is said in reference to the cases of those who have thought they heard words spoken when nobody was near them.

around; nor is there any delay or interruption allowed to the efflux; since we perpetually perceive *it* with our senses, and may see all objects at all times, and smell *them*, and hear *them* sound.

Further, since any figure felt with the hands in the dark is known to be the same which is seen by day and in clear light, it necessarily follows that touch and sight are excited by a like cause. If, therefore, we handle a square object, and that *object* affects us *as a square* in the dark, what object, in the light, will be able to answer to the shape of it, except its quadrangular image? For which reason the faculty of discerning *forms* is found to depend upon images, and *it seems* that no object can be distinguished by the eye without them.

Now those images of objects, of which I am speaking, are carried in every direction, and are thrown off *so as to be* distributed on all sides; but, because we can see only with our eyes, it therefore happens, that whatsoever way we turn our sight, all objects on that quarter strike on it with their shape and colour. And the image causes us to see, and gives-us-means to distinguish, how far each object is distant from us. For when it is sent forth *from the object*, it immediately strikes and drives forward *that portion of* air, which is situated between itself and *our* eyes; and the whole of that *air* thus glides through our eyes,[1] and, as it were, brushes the pupils gently, and so passes on. Hence it comes to pass that we see how far distant each object is; and the more air is driven before *the image*, and the longer the stream of it that brushes through our eyes, the farther each object seems to be removed *from us*. These effects, you may be sure, are produced with an ex-

[1] The whole of that *air* thus glides through our eyes.] Ver. 249.

> Isque ita per nostras acies, perlabitur omnis,
> Et quasi pertergit pupillas, atque ita transit.

"Per oculos nostros perlabitur." *Creech.* "Permanat per nostras pupillas oculorum." *Ed. Delph.* "Se faisant passage le long des prunelles." *Coutures.* This is very well, but what shall we make of *atque ita transit?* If it enters the pupils of the eyes, to what part does it pass off? Good makes it very conveniently, "Strikes on the sentient pupil, and retires." But this was suggested, I suppose, by Wakefield's note, who, finding a difficulty, proposed to read *sub* instead of *per*. This notion about the stream of air making known the distance, is repeated in ver. 280, *seq.*

quisitely rapid process, *so* that we see what *the object* is, and, at the same time, how far it is distant.

In these matters it is by no means to be accounted wonderful, why, when those images which strike the eyes cannot be severally discerned, the objects themselves, *from which they proceed*, are perceived. For, in like manner, when the wind strikes upon us by degrees, and when sharp cold spreads *over us*, we are not wont to perceive each first *and successive* particle of that wind and cold, but rather the whole together; and we then perceive, as it were, blows inflicted upon our body, as if some substance were striking us, and producing in our frame a sense of its force *which is* without *us*. Besides, when we strike a stone with our finger, we touch the very extreme *superficies* of the stone, and the outside colour; and *yet* we do not feel that *colour* with our touch, but rather perceive the hardness of the stone deeply *seated* within *its substance*.

And now learn in addition to this, why the image *of an object in a mirror* is seen beyond the mirror; for certainly it seems extremely remote *from us*. The case is the same as with those *objects* which are plainly seen out of doors, when a door, *standing open*, affords an unobstructed prospect through it, and allows many objects out of the house to be contemplated. For this view, also, *as well as that in the mirror*, takes place, *if I may so express it*, with a double and twofold *tide of* air. For first is perceived the air on this side of the door-posts; then follow the door-posts themselves on the right hand and on the left; next the external light strikes the eyes, and the second *portion of* air, and *all* those *objects* which are clearly seen abroad. So, when the image from the glass has first thrown itself forward, *and* whilst it is coming to our sight, it strikes and drives forward the air which is situate between itself and the eyes, and causes us to perceive all this *air* before *we see* the mirror; but when we have looked on the mirror itself,[1] the image which is thrown

[1] But when we have looked on the mirror itself, &c.] Ver. 284.

——Sed, ubi in speculum quoque sensimus ipsum,
Continuò à nobis in eum, quæ fertur, imago
Pervenit.

Thus stands the passage in Wakefield and Forbiger. Wakefield would join *insensimus*, and this is perhaps the best thing that can be done. As for the *eum* in the next line, he makes it agree with *aëra*.

off from us, reaches it, and, being reflected, returns to our eyes, and *so*, propelling another *portion* of air before it, rolls *it on*, and causes us to perceive this *air* before we see itself; and on that account seems to be distant, *and to be* so much removed from *or behind* the mirror. For which reason, again and again *I say*, it is by no means right for those *who study these matters*, to wonder at the effects which attribute vision from the surface of mirrors to *the influence of* two portions of air; since the appearance is produced by means of both.

Now that which is *in reality* the right side[1] of our bodies, is made to appear on the left *side* in mirrors, for this reason, that when the image, *which proceeds from our person*, strikes upon the plane of the mirror, it is not reflected without a change, but, being turned back, it is so struck out *of its former state*, as *would be the case with* a mask of plaster, if, before it were dry, any one should dash *its face* against a pillar or a beam; when, if it should preserve, at that instant, its true figure *as* in front, *or as when its front was presented to you*, and should exhibit itself, *or its exact features*, driven back *through the hinder part of the head*, it will happen that the eye which before was the right, is now become the left, and *that which was* on the left, correspondently, is made the right.

It is contrived, also, that an image may be transmitted from mirror to mirror; *so* that five, and even six images, have been often produced. For whatsoever *object in a house* shall be hid, *as lying* back in the interior part *of it*, it will yet be possible that every such *object*, however removed *out of sight* by crooked turnings and recesses, may, (being drawn out, by

First comes to us the *imago speculi*, propelling a certain portion of air; then comes our own image from the speculum, striking upon that same air. But Lachmann judiciously changes *in eum* into *iterum*, and omits the *in* in the preceding verse. At the end of the paragraph "by means of both" answers to *utraque*, which Wakefield, from Non. Marc. ii. 882, says is for *utrinque* or *utroque;* other editions have *utroque*. It is well for us, as Wakefield observes, that we are only the interpreters of Lucretius's language, and not the patrons of his philosophy.

[1] Now that which is *in reality* the right side, *&c.*] Ver. 293. The reader of this paragraph in Forbiger, will observe that *lævâ*, ver. 294, is for *in lævâ*; other editions have *in.*—*Recta*, ver. 296, is the participle of *rego.*—*Oculos*, ver. 301, is for *oculus*.

means of several glasses, through the winding passages,) be seen to be in the building. So exactly is an image reflected from glass to glass; and, when it has been presented *to us* on-the-left-hand, it happens afterwards that it is produced on-the-right; *and* thence it returns again, and changes to the same position *as before.*

Moreover, whatever small sides *or plates* there are of glasses, formed with a *round* flexure similar to that of our own side, they, on that account, reflect to us images *in the* right *position;*[1] either because the image is transferred from glass to glass, *and* thence, being twice reflected, flies forward to us; or, again, because the image, when it comes forth, is turned about, inasmuch as the curved shape of the glass causes it to wheel itself round to us.

Further, you would suppose that our images *in a mirror* advance together with us, and place their foot *with ours*, and imitate our gesture; *which appearance happens* from this cause, that from whatever part of the mirror you recede, the images, after that moment, cannot be reflected from that part, since nature obliges all *images* to be reflected from mirrors, (as well as to fly off from objects,) according to the corresponding gestures *of the person whom they represent.*[2]

[1] They, on that account, reflect to us images *in the* right *position.*] Ver. 314. *Dextera eâ propter nobis simulacra remittunt.* I have translated *dextera* according to the notion of Lambinus: *quorum dextræ partes nostris dextris respondent.* But what sort of glasses are intended, or in what position we must conceive them placed, is very far from clear. I was inclined at one time to think that the *columnar-concave* mirror was meant, so that *de speculo in speculum*, ver. 315, might signify *from side to side of the glass;* and there is nothing in the text to contradict this supposition, unless it be said that *de speculo in speculum* will not bear this signification; but this I may be allowed to doubt. Lambinus, however, explains it, *teres speculi figura instar columnæ*, evidently thinking the shape convex. Other commentators say nothing to the purpose. The notion of concavity seems rather to be favoured by ver. 318. *Flexa figura docet speculi convortier ad nos: sc. imaginem.* And Gassendi, *De Physiologiâ Epicuri*, vol. ii. p. 260, thinks that concave mirrors were meant.

[2] According to the corresponding gestures *of the person whom they represent.*] Ver. 324. *Ad æquos reddita flexus.* Creech foolishly interprets *ad æquos flexus* by "ad æquales angulos." Lucretius had no thought of equal angles. Good rightly understands the passage to signify that the reflected image "must bear each variance of the parent form;" and Coutures, that the reflexion must be made "per l'egale opposition des surfaces."

Bright objects, also, the eyes avoid, and shrink from beholding. The sun even blinds you, if you persist to direct *your eyes* against *it;* inasmuch as the power of it is great; and images *from it* are borne down impetuously from on high through the clear air, and strike the eyes *forcibly*, disturbing *and causing pain in* their sockets.[1] Moreover, whatever splendour is strong, often burns the eyes, because it contains many seeds of fire, which produce pain in the organs-of-sight by penetrating *into them.*

Besides, whatever objects jaundiced persons[2] look upon, become *in their sight* yellow like themselves; because many atoms of yellow colour flow off from their bodies, meeting *and tinging* the images of objects; and many of the same atoms are moreover mixed in their eyes, which, by their contagion, paint all things with lurid hues.

But *when we are in the dark*, we see, from the darkness, *objects* that are in the light, because when the black air of the darkness, *being* nearer *to us*, has entered the open eyes first, and taken possession *of them*, the bright white air immediately follows, which, as it were, clears them, and dispels the black shades of the other air; for this *lucid air* is by many degrees more active, and far more subtle and powerful: which, as soon as it has filled with light, and laid open, the passages of the eyes, which the dark air had previously stopped, plain images of objects immediately follow and strike *upon the eyes, so* that we see those objects which are situated in the light. This, on the other hand, we cannot do, *when we look* from the light *towards objects* in the dark, because the thicker air of darkness follows behind *the light air;* which *thicker air* fills the pores, and stops up the passages of sight, *so* that the images of any things *whatsoever*, being involved *in it*, cannot be moved *forward into the eyes.*[3]

And when we behold the square towers of a city a long

[1] Their sockets.] Ver. 329. *Composituras.* "Τὰς ἁρμογὰς." *Lambinus. The settings of the eyes.*

[2] Besides, whatever objects jaundiced persons, &c.] Ver. 334. *Quæcunque tuentur Arquati.* "The explanation is extremely apposite, and, upon the Epicurean system of effluvia, highly ingenious." *Good.*

[3] Images — cannot be moved *forward into the eyes.*] Ver. 353. *Ne simulacra Possint ullarum rerum contecta moveri.* My translation is based upon Wakefield's interpretation.

way off, it happens, on account *of the distance*, that they often seem round, because every angle, *being* afar off, is seen *as* obtuse, or rather is not seen *at all;* the impulse *of its image* dies away, and the force of it does not reach to our eyes; since, while the images *of it* are borne through a large body of air, the air, by frequent percussions *upon them*, obliges that *force* to become-ineffective. Hence it comes to pass, that when every angle has escaped our vision at the same time, the constructed stones are seen as if *fashioned* to a round;[1] not, however, like *round objects* which are immediately before us, and *which are* exactly circular, but they appear, as it were, nearly, after a shadowy fashion, resembling them.

Our shadow likewise seems to us to move in the sun, and to follow our footsteps, and to imitate *our* gesture; (if you *can* fancy air, devoid of light, to go forwards, following the movements and gesture of men; for that which we are accustomed to call shadow can be nothing else but air deprived of light;) evidently because the ground, in certain spots successively, is excluded from the radiance, wherever we, as we go, obstruct *it;* and *that part* of it, which we have left, is again covered *with light.* From this cause it happens, that what was the shadow of our body, seems *to be* still the same, *and* to have followed exactly-opposite *us.* For fresh illuminations of rays are perpetually pouring themselves forth; and the first disappear *as quickly* as wool *vanishes*, if applied to a flame.[2] By this means the ground is both easily deprived of light, and again covered with it, and discharges from itself the black shadows.

Nor yet in this case do we allow that the eyes are at all deceived; for it is their business *only* to observe in whatever place there may be light or shade; but whether the light is the same or not, and whether the same shadow, which was

[1] As if *fashioned* to a round.] Ver. 362. *Quasi ut ad tornum. Tornus* is generally considered to mean *a turner's wheel, or lathe,* or *turning iron,* but seems here to signify the figure formed by such instrument. Lambinus reads *quasi tornata ut*—, and considers that *ad tornum* came into the text from a gloss.

[2] As wool *vanishes*, if applied to a flame.] Ver. 377. *Quasi in ignem lana trahatur.* "Nothing could be imagined more applicable and expressive than this simile; for what is consumed quicker than the fine filaments of wool, when they are set on fire?" *Wakefield.* Good refers to Isaiah, xlii. 17, "They are consumed as tow;" and to Cowper's Task, ii. 9. "As the flax That falls asunder at the touch of fire."

here, passes thither, or rather, as we said before, *a new one* is *constantly* produced,—this the judgment of the mind *only* must determine; *for* the eyes cannot know the nature of things; *and* therefore you must not impute to the eyes that *which may be* the fault of the understanding.

A ship, in which we sail, is carried forward, when it seems to stand still; and that which remains stationary, is imagined to go by *us;* and the hills and plains, past which we row our vessel, or fly with sails, seem to flee away astern.

All the stars seem to be at rest, *as* being fixed to the vaults of the sky; and *yet* all are in perpetual motion; for when, after rising, they have traversed the heaven with their shining orbs, they return to their distant places-of-setting. And the sun and the moon, in like manner, seem to remain stationary; bodies which observation itself shows to be carried forwards.

And mountains rising up, at a distance, from the middle of the sea, between which a free passage for ships is open, yet *appear without separation, so that* one vast island seems to be formed from the two united.

It likewise happens that to children, after ceasing to whirl themselves about, the rooms seem to turn, and the pillars to run round, so that they can hardly believe that the whole building is not threatening to fall upon them.

And when nature begins to raise on high the beams of the sun, red with tremulous fires, and to exalt *them* above the hills, the hills over which the sun then appears to be, himself *apparently* touching them close, (glowing with his own beams,) are scarcely distant from us two thousand flights of an arrow, often even scarcely five hundred casts of a dart; *yet* between them and the sun, *which seems in contact with them,* lie broad expanses of sea, stretched out under vast regions of sky; and many thousand miles of land *also* intervene, which various nations of men, and tribes of wild beasts, occupy *and overrun.* And, *to mention another ocular delusion,* a puddle of water, not deeper than a finger, which settles among the stones in the paved streets, affords, *apparently,* a prospect downwards under the earth, to a depth as great[1] as *the height to which* the lofty arch of heaven extends above the earth; *so* that you seem to look down upon the clouds and to see a heaven *be-*

[1] To a depth as great.] Ver. 417. *Impete tanto.* "Id est tantâ altitudine." *Lambinus.*

neath, and to behold, by a surprising effect, the celestial bodies buried in the sky under ground.

Moreover, when a spirited courser sticks fast with us in the middle of a river, and we look down into the swiftly-flowing water of the stream, a force seems to be carrying the body of the horse, *though* standing still, in a contrary direction *to the current*, and to drive it rapidly up the river; and, whithersoever we turn our eyes, all objects appear to us to be carried along, and to flow, in a similar manner.

A portico, too, although it be of equal dimensions throughout, and standing supported with equal columns from-end-to-end, yet, when it is viewed from the extremity through its whole length, contracts gradually, *as it were, to the* apex of a tapering cone, joining the roof to the floor, and all the right-hand parts to the left, until it has narrowed-itself to the indistinct point of the cone.

To sailors at sea it occurs that the sun, having risen from the waves, seems *also* to set, and bury its light, in the waves; as, in their situation, they behold nothing else but water and sky; *a remark which I make*, that you may not lightly suppose that the senses are altogether deceived.

But to those ignorant of the sea,[2] ships in the harbour *often* appear to strive, disabled in their equipments, against the broken waves; for *though* whatever part of the oars is raised above the water of the sea, is straight, and *the part of* the helm above *the water* is straight, *the parts* which go down, *and are* sunk in the water, seem all, *as if* broken, to be turned and inverted, sloping upwards, and, *thus* bent back, to float almost *up* to the surface of the water.

And when the winds, in the night time, carry light vapours athwart the sky, the bright constellations seem then to glide against the clouds, and to pass along on high in a far different direction than that in which they are really borne.[3]

[1] Altogether deceived.] Ver. 436. *Labefactari undique.*

[2] But to those ignorant of the sea, &c.] Ver. 437.

> At maris ignaris in portu clauda videntur
> Navigia aplustris, fractas obnitier undas.

"*Aplustria* are ornaments of ships; but the word, in this passage, signifies all parts of the vessel that rise above the water, as is shown by what follows." *Creech.* See ii. 555. The lines are not very satisfactory. Lambinus reads *aplustris fractis*, which makes better sense.

[3] Really borne.] Ver. 447. *Ratione feruntur.* Ἀληθῶς, ὄντως. *Faber*

But if by chance the hand, applied to one eye, presses it underneath, it happens, by some *impression on the* sense, that all things, at which we look, seem to become double as we gaze on them; two lights in the lamps *appear* blossoming with flames; the twin furniture *seems* to be doubled throughout the house; and the faces of the people seem double, and their persons double.

Moreover, when sleep has bound *our* limbs in agreeable repose, and the whole body lies in profound rest; yet, at that very time, our limbs appear to be awake and to move themselves, and we imagine that, in the thick darkness of night, we see the sun, and the light of day; and, though in a confined place, we seem to change *our position with respect to* the heaven, the sea, rivers, *and* mountains, and to cross over plains on foot, and to hear sounds, though the unbroken silence of night reigns around *us*, and to utter words, though our tongues remain still.

Other things of this class, exciting our wonder, we see in great numbers; all which seek, as it were, to destroy the credit of *our* senses: *but they strive* in vain; since the greatest part of these *appearances* deceive us only because of the fancies which we allow to bear upon them; so that those things which have not been seen by our senses, are *to us* as if seen. For nothing is more difficult than to separate certain from doubtful things; *things* which the mind, *when their fallaciousness is discovered*, straightway rejects from itself.[1]

Moreover, if any one believes that nothing is known,[2] he himself, also, knows not whether that can be known from which he, *forming a judgment*, confesses that he knows nothing. Against him, therefore, I shall forbear to urge argument, who, of his own will, has placed himself with his face towards his footsteps.[3] And although I should even grant that he knows

[1] *Things* which the mind—straightway rejects from itself.] Ver. 469. *Animus quas ab se protinus abdit.* "*Abdit*," says Wakefield, "*repellit, rejicit*, rejects the doubtful, that it may admit the certain." Lachmann, with Lambinus and Creech, reads *ab se addit*, that is, "adopts from its own fancy."

[2] Moreover, if any one believes that nothing is known, *&c.*] Ver. 470. "These observations are directed against the Academics, who contend that nothing can be known and that the senses are fallacious and deceitful." *Lambinus.*

[3] Who, of his own will, has placed himself with his face towards

this, I should still put to him the following question: when he has seen no truth in things previously, how he knows what it is to know and not to know, in contradistinction to one another? What cause, *I shall ask him*, produced *his* knowledge of truth and falsehood, and what power has proved *to him* that what is doubtful differs from what is certain?

The knowledge of truth, you will find, is derived from the senses as-its-origin,[1] and *you will own* that the senses cannot be refuted. For that which, of its own power,[2] can refute false *notions* by real *facts*, must be found of greater credit *than to be liable to confutation.* What, then, must be esteemed of greater credit than the senses? Shall reasoning, arising from erring sense,[3]—*reasoning, I say*, which has arisen wholly from the senses, *and which can depend on nothing else*,—be of sufficient force to refute those *senses? For* unless these, *our senses*, are true *and trust-worthy*, all reasoning consequently becomes false *and unfounded? But what, that is external to the senses, shall confute the senses, or will they disagree among themselves, and refute one another?* Will the ears be able to refute the eyes? Or *will* the touch *refute* the ears? Or will the taste of the mouth, moreover, refute the touch? Will the

his footsteps.] Ver. 473. *Qui capite ipse suo in statuit vestigia sese.* 'The order is, *Qui ipse statuit sese suo capite in vestigia:* i. e. who has turned his head towards the footsteps which he has left behind him, as if about to go over the same track, and has made no progress." *Wakefield.*

[1] The knowledge of truth, you will find, is derived from the senses as its origin, *&c.*] Ver. 479. *Invenies primis ab sensibus esse creatam Notitiam veri.* See i. 424. "I think nobody can in earnest," says Locke, "be so sceptical as to be uncertain of the existence of those things whch he sees and feels. At least, he that can doubt so far will never have any controversy with me, since he can never be sure I say any thing contrary to his opinion." Essay, book iv. 11, 3, 8.

[2] For that which, of its own power, *&c.*] Ver. 481.

> Nam majore fide debet reperirier illud,
> Sponte suâ veris quod possit vincere falsa.

It is a question what is to be understood after *majore fide.* Greater faith than what? The commentators give no help. I have added that which makes, I hope, a satisfactory sense. Epicurus called the senses the *criteria of truth.*

[3] Shall reasoning, arising from erring sense, *&c.*] Ver. 484. *An ab sensu falso ratio orta*, &c. If the senses err, reasoning, which is based on the senses, cannot prove that they err. It could only *litem lite resolvere.* But the senses, as Lucretius proceeds to show, do not err.

nostrils confute *the other senses*, or will the eyes contradict *them?* It is, as I think, not so; for to each *sense* is separately assigned its own faculty; each has its own power; and it is therefore necessary that what is soft, and *what is* cold, and *what is* hot, should seem *so;* and it is necessary, *also*, that *we* should perceive distinctly the various colours of things, and whatever *things* are connected with colours. The taste of the mouth, likewise, has *its own* power separately; scents are produced independently, and sounds independently *of the other senses;* and it necessarily follows, therefore, that some senses cannot confute others. Nor again, will they, *as a body*, confute themselves; for equal trust must at all times be placed *in every one of them.* That, therefore, which, at any time whatsoever, has seemed *true* to them, is true.

And if reasoning shall be unable to unfold the cause why those *objects* which, when close at hand, were square, have appeared round at a distance, yet it is better *for a man*, being *partially* deficient in reasoning, to give explanations of each figure erroneously, than by any means to let slip[1] from his hands *things that are* manifest, and to destroy the first *principles of* belief, and tear up all the foundations on which life and safety rest. For not only would all reasoning fall to the ground, but life itself would at once come-to-nothing, unless you venture to trust *your* senses, and to avoid precipices,[2] and other *things* of this sort which are to be shunned, and to pursue those *things* which are *of a* contrary *character.* That, therefore, is all an empty body of words, you may be sure,[3] which is arrayed *and* drawn up against the senses.

Lastly, as, in a building, if the rule is wrongly applied at first, if the square, *being* erroneously *placed*, deviates from the proper position, and if the level is in the least inexact in any spot, all parts-of-the-edifice are necessarily rendered faulty and distorted, and *become* ill-shaped, sloping, hanging forwards *or* backwards, and inconsistent *with one another;* so that some

[1] By any means to let slip.] Ver. 505. *Dimittere quoquam.* "Glossator vetus: *Quoquam, ὁλως ποῦ, ποι.*" *Wakefield.* Lambinus reads *quæquam.*

[2] To avoid precipices.] Ver. 510. *Præcipitesque locos vitare.* Rupem et puteum vitare patentem: Hor. Ep. ii. 135. "Too wise to walk into a well." *Pope.*

[3] You may be sure.] Ver. 512. *Tibi.* In ver. 521 I have omitted *tibi*.

seem inclined to fall, and *some* actually do fall, being all made unsound by false measures at the commencement. Thus, accordingly, whatever reasoning on things has sprung from fallacious senses, must of necessity be erroneous and deceitful. *If the senses be false, all arguments from them must be false.*

We have already spoken of sight; and now no difficult argument is left *for us, to show* how the other senses discern each its own object.

In the first place, every sound and voice is heard, when, being infused into the ears, they have struck with their substance on the sense. For we must admit that voice and sound are corporeal, since they can make impression on the senses. On this account the voice often abrades the throat, and *its* loud sound, as it passes forth, makes the wind-pipe rougher. For when the atoms of the voice (a larger body *of them than usual* having risen together) have proceeded to go forth *from the mouth,* the passage of the mouth, from the pores being filled up, is rendered hoarse, and the voice injures the road by which it issues into the air. It is by no means to be doubted, therefore, that voices and words consist of corporeal particles, as having power to cause *corporeal* injury.

Nor does it escape your knowledge, also, how much substance perpetual speaking, protracted from the rising splendour of Aurora to the shade of black night, detracts *from the body,* and how much it wears away from the very nerves and strength of men, especially if it is uttered with extreme loudness. The voice, therefore, must necessarily be corporeal, since he who speaks much, loses, *from its effect,* a portion of his corporeal-substance.

Nor do the particles *of sound* penetrate the ear under a like form, when the crooked barbarian trumpet bellows heavily with a deep murmur, and calls up a hoarse dead-sound; and when swans, in the pangs of death, raise, with a mournful voice, a liquid dirge from the vales of Helicon.

These words *and sounds,* therefore, (when, *being formed* within, we expel them from our body, and send them forth straight by the mouth,) the active tongue, skilful-in-forming words, articulates; and the shape into which the lips are put, partly *assists to* fashion *them.* But asperity of the voice is caused by asperity of *its* particles, and *its* smoothness is also produced by *their* smoothness.

For this reason, when the distance is not great *to the spot* whence each word, having started forth, arrives *at our ears*, it happens, of necessity, that the words themselves are also plainly heard, and distinguished in-every-note; for *the voice* keeps its formation, and maintains its figure. But if a greater space than is convenient is interposed, the words, passing through a large body of air, are necessarily confused, and the voice, while it flies through the aerial-interval, is disordered. It accordingly happens that you hear a sound, but cannot distinguish what is the meaning of the words;[1] so confused and obstructed does the voice come *to you.*

Besides, one word, uttered from the mouth of a crier in the midst of the people, often penetrates the ears of all. One voice, therefore, suddenly divides into many voices, since it distributes itself to each individual ear, stamping on *it, as it were*, the form and clear sound of the words. But that part of the *several* voices which does not fall on the ears themselves, is lost, being carried past *them, and* diffused through the air. *Some* portion *of it too*, struck against solid objects, *and* rebounding *like* a stone,[2] returns a sound, and sometimes mocks you with the semblance of a word.

Which things when you consider, *my* good *friend*, you may be able to render an account to yourself and others, how rocks, in solitary places, regularly return similar forms of words *to those which we utter*, when we seek our companions wandering among the shady hills, and call them, as they are scattered abroad, with a loud voice. I have noticed places repeat six or seven words, when you uttered only one; *for* the mountains, reverberating the words spoken, repeated them so that they were re-echoed[3] *without change.*

Such places the neighbouring *people* pretend that Satyrs and Nymphs inhabit; and say that there are Fauns *in them*, by

[1] Cannot distinguish what is the meaning of the words.] Ver. 562. *Neque ollam Internoscere, verborum sententia quæ sit:* i. e. *ollam sententiam, quæ sit*, or *quæ sit olla sententia.* Lambinus, for *ollam*, reads *hilum.*

[2] Rebounding *like* a stone.] Ver. 572. *Lapis rejecta.* This is Wakefield's reading and interpretation. But the soundness of the passage is very doubtful. Lachmann, following Lambinus, reads *Pars solidis adlisa locis, rejecta sonorem*, &c.

[3] Repeated them so that they were re-echoed.] Ver. 501. *Iterabant —referri.* "Id est, ὥστε referri, ita ut referrentur." *Wakefield.*

whose noise, and sportive play, re-echoing through the night, they universally affirm that the dead silence is broken, and that sounds of chords and sweet plaintive-notes are heard, which the pipe, struck with the fingers of those playing, pours forth *around*. *They relate, also*, that the race of husbandmen hear far and wide, when, frequently, Pan, shaking the piny garland of his half-savage head, runs over the open reeds with his curved lip, ceasing not to repeat[1] his sylvan song. Other wonders and prodigies of this kind they relate, lest, perhaps, they should be thought to dwell in lonely places, deserted even by the gods; for this reason they talk of *such* marvels in their discourse, or, *perchance*, are prompted by some other cause, as all men are too eager for ears *that will listen to wonderful stories*.[2]

Furthermore, it is not surprising, how, through places where the eyes cannot discern plain objects, through these *very* places voices pass, and excite the ears. We often, too, witness a dialogue held between two persons *in different apartments*, with the doors closed. *The cause is* evidently *this*, that the voice can pass unbroken through winding pores of bodies, *though* images refuse *to pass through them;* for *the latter* are broken to pieces, unless they go through straight passages, such as those of glass, through which every image flies.

Besides, the voice is distributed in all directions, inasmuch as some *voices* are produced from others; for *this happens* where one voice has split itself into many, as a spark of fire, when it has started forth, is often wont to disperse itself into its own *separate* fires. Places, accordingly, which have been all shut up behind *and* around *the speaker*, are filled with voices, and shaken with sound. But *as for* images, *they* all, when once they have been thrown off, pass *only* by straight openings, for which reason no one can see objects beyond walls, though he may hear voices *from* beyond *them*. And yet this very voice, also, while it goes through the obstructed passages, is dulled, and we seem to hear a sound rather than *distinct* words.

That *faculty*, by which[3] we perceive taste, *the organs being*

[1] Ceasing not to repeat.] Ver. 591. *Ne cesset fundere.*

[2] Too eager for ears *that will listen to wonderful stories.*] Ver. 596. *Avidum nimis auricularum.* "Men, being eager for listeners, invent stories to attract them." *Lambinus.*

[3] That *faculty*, by which, *&c.*] Ver. 617. *Hoc, quâ sentimus sucum,*

the tongue and the palate, requires for itself somewhat more argument and more explanation.

In the first place, we perceive savour in the mouth, when we express *it from* food by mastication; as when any one, for example, proceeds to press and dry with his hand a sponge full of water. What we express, is then distributed through all the ducts of the palate, and the tortuous pores of the soft tongue.[1] By this means, when the atoms of the juice flowing out are smooth, they touch *the sense* agreeably, and affect all *parts*, around the humid exuding regions of the tongue, with pleasure. But, on the other hand, as atoms are severally more endowed with roughness, so much the more, issuing forth in a body,[2] they sting and lacerate the sense.

Moreover, pleasure *experienced* from the taste *of food* is *limited* by the extent of the palate; as, when *the juice* has descended downwards through the throat, there is no enjoyment while it is all being distributed through the members; nor is it of any consequence with what food the body is nourished, so that you be but able to disperse what you take, when digested, through the organs, and preserve the humectant[3] tenor *and action* of the stomach.

I will now explain, (in order that we may understand *this point*,) how *it is that* different food is allotted to different *animals*, or why that which is sour and bitter to some, may yet seem to others extremely sweet. And so great is the difference and variety in these matters, that that which to some is food, to others is rank poison. Thus it happens that a serpent, which is touched with human saliva,[4] perishes, and *even*

lingua atque palatum, Plusculum habent in se rationis, &c. The *hoc* is Wakefield's reading, and makes the passage nonsense. Lambinus reads *Hæc queis*, and Lachmann gives *Nec quî*. Wakefield interprets his *hoc* by *hæc res*, and I have endeavoured to make the best of that which is bad.

[1] Soft tongue.] Ver. 623. *Raræ linguæ*. Of a spongy consistence, its atoms not being closely combined.

[2] Issuing forth in a body.] Ver. 627. *Coorta*.

[3] Humectant.] Ver. 634. *Stomachi humectum servare tenorem*. "By *humectus tenor stomachi* he means that copious and constant supply of saliva and juices, which suffices to digest the food." *Havercamp*.

[4] A serpent, which is touched with human saliva, &c.] Ver. 640. *Serpens hominis quæ tacta salivis, Disperit*. This was a notion among the ancients. Lambinus refers to Plin. N. H. vii. 2; and it is also to be found in Aristotle and Galen.

commits suicide by biting *himself*. Besides, hellebore is strong poison to us, but increases the fat of goats and quails.

That you may understand by what means this happens, it becomes you in the first place to call to mind what we have *often* said before, that in bodies are contained *many* seminal-atoms, mingled in many ways. Moreover, as all living creatures, which take food, are dissimilar externally, and as the extreme outline of their limbs restricts them *variously* according to their kinds, so they likewise consist of *different* seminal-particles, and vary in the figure *of their elements*. Further, when the seminal-particles differ, their intervals and passages, which we call pores, in all the limbs, and in the mouth, and the palate itself, must *likewise* differ. Some *of these pores*, therefore, must be greater, and *some* less; some *animals* must have triangular pores, some square; many *pores* must be round, *and* some polygonal, *varied* in several ways. For as the nature of the shapes *of the seminal-particles*, and their motions, require, the figures of the pores must differ accordingly, and the intervals *among the atoms* must vary just as the combination *of the atoms* demands. On this account, when that which is sweet to some *animals* is bitter to others, exquisitely-smooth atoms must enter gently *and easily* into the pores of the palate of that *animal* to whom it is sweet; but, on the contrary, rough and jagged particles, as is evident, pierce the mouths of those *animals* to whom the same substance is bitter.

From these facts it is now easy to understand every particular *connected with this subject*. For when in any person fever has arisen from the superabundance of the bile, or any violence of disease has been excited by *any* other means, his whole body is at once disturbed, and all the positions of the atoms in him are changed; it happens that particles which before suited his sense *of taste*, are now unsuitable *to it*, and others, which, when they have penetrated *the pores*, produce a bitter sensation, are more adapted to it. For *even in sweet bodies, as* in the flavour *and substance* of honey, both *rough and smooth particles* are mixed; a fact which we have demonstrated to you frequently before.[1]

And now give me your attention *further; for* I shall show in what manner the approach of odour affects the nostrils.

[1] Demonstrated to you frequently before.] Ver. 674. See i. 815, 894; ii. 585.

First, there must necessarily exist many substances, from which a varied effluence of odours streams forth and evolves itself; *for* that *odours* do both flow off, and are sent forth and dispersed abroad, we must *naturally* suppose. But certain *odours*, on account of the different shapes *of their particles*, are more suited to some animals than to others: and thus bees are attracted by the smell of honey in the air, however far distant, and vultures by *the smell of* carcasses; also the keen-scent of dogs, preceding *their steps*, leads *them*[1] whithersoever the cloven hoof of the stag has directed *its* course; and the white goose, the preserver of the citadel of the Romans, perceives from afar the smell of a man. Thus different scent assigned to different animals, leads each to its own food, and causes it to recoil from destructive poison; and by this means the tribes of beasts are preserved.

Of this very odour, then, which excites the nostrils, it happens that one *kind* is carried farther than another; but yet none of them is carried so far as sound, *or* as the voice;—I forbear to say as those *airy* substances which strike the eyes, and excite vision. For *odour*, wandering about, passes but slowly, and, being dispersed through the yielding air, soon gradually dies away;[2] chiefly because it is with difficulty evolved out of *any* substance from its interior. For that odours flow and come forth from the interior of substances, *this consideration sufficiently* indicates, that all bodies when broken, bruised, or split into fragments in the fire, seem to cast a stronger scent *than when whole.* It is, besides, easy to see that odour is composed of larger atoms than sound; since it does not penetrate through stone walls, through which the voice and sounds constantly pass. For which reason you will see that it is not so easy to ascertain in what quarter a body that casts a scent is placed, *as to find out one that emits a sound.* For the *force and* impulse *of an odour*, by moving slowly through the air, *soon* becomes chill *and powerless;* nor do *the*

[1] The keen-scent of dogs, preceding *their steps*, leads *them.*] Ver. 683. *Permissa canum vis Ducit.* Gronovius, cited by Havercamp, interprets *permissa*, "ἀϊσσουσα, συθεῖσα," or "penetrans, longè missa." *Vis* I take in the sense of *faculty, keen-scent.* In Virgil's *odora canum vis*, (Æn. iv. 132,) it probably means *force, number, multitude.*

[2] Soon gradually dies away.] Ver. 694. *Perit antè Paullatim.* I have considered *antè* equivalent to *soon.* Creech interprets it, "antequam longum iter conficiat."

atoms, the heralds of substances, come warm to the sense. From this cause dogs are often at fault, and *have to* seek for traces *of the scent.*

Nor does this occur, indeed, in respect to odours only, and in the case of tastes; but the appearances and colours of things, likewise, do not so agree with the senses of all *men alike*, but that some are more acrid *and repulsive* to the sight than others. Even fierce lions cannot endure to stand against, and to look upon, a cock, which, as his flapping wings startle the night,[1] is accustomed to call Aurora with his loud voice; *lions, I say, will not endure him*, so suddenly do they bethink them of flight; *the cause* evidently *being*, that there are in the bodies of cocks certain particles, which, when sent forth into the eyes of lions, pierce the pupils, and cause sharp pain, *so* that *the beasts, however* fierce, cannot hold out against *them*, although these same particles cannot at all hurt our eyes; either because they do not penetrate, or because, if they do penetrate, a free outlet from the eye is permitted to them, so that they cannot in any respect hurt the organs of sight by remaining *in them.*

And now give me your attention, *and* learn what substances affect the mind; and understand, in a few words, whence those things which come into the mind proceed.

In the first place, I assert this, that numbers of subtle images of things wander about in many ways in all directions; *images* which, when they meet, are easily united together in the air, as the spider's web, and a leaf of gold. For these *images* are far finer in their texture than those which affect the eyes and excite vision; since these penetrate through the small *pores* of the body, and excite the subtle substance of the mind within, and arouse the sense.

Thus *it is that* we see Centaurs, and the members of Scyllæ, and the Cerberean mouths of dogs, and the apparitions of those whose bones, after death has been passed, the earth contains. Since spectra of all kinds are every where carried about, which are partly *such as are* formed spontaneously in the air, partly, whatever fly off from various objects; and partly, *those* which *images*, formed of figures of these *two kinds*,

[1] As his flapping wings startle the night.] Ver. 712. *Noctem explodentibus alis.* "His wings disturbing and driving away the night with sound and flapping." *Lambinus.*

compose.[1] For assuredly the image of a Centaur is not formed from a living *Centaur*, since there has been no such figure in life; but when the images of a horse and a man have come together by chance, they easily *and* quickly cohere, (as we said before,) because of their subtle nature and filmy texture.

Other *images* of this sort are produced in the same manner; and since these, from their extreme lightness, are, as I have shown above, swiftly carried about, any one thin image *of them all* easily stimulates our mind with a single impression; for the mind is itself subtle and eminently excitable.

That these things take place, as I state, you may easily learn from hence; *that* inasmuch as this *impression on the mind*[2] is similar to that *on the bodily senses*, it necessarily follows that *that* which we see with the mind, and *that which we see* with the eye, are effected by similar means. As I have shown, accordingly, that I perceive *lions*, for example,[3] by means of images of lions, which excite the eyes; we may understand that the mind is moved by images of lions in like manner, *and by* other *images of other things*,[4] which it sees *and discerns equally* and not less than the eyes; only *we must observe* that it sees more subtle *images*.

Nor for any other reason does this sense of the mind become awake when sleep has spread itself over the limbs, than because these same images excite our minds, which *affect our senses* when we are *corporeally* awake; to such a degree that we seem plainly to behold him, of whom, his life having

[1] Partly, *those* which *images*, formed of figures of these *two kinds*, compose.] Ver. 740. *Et quæ conficiunt ex horum facta figuris.* "Et quas imagines simulacra, ex horum duorum figuris facta, conficiunt." *Wakefield.*

[2] Inasmuch as this *impression on the mind, &c.*] Ver. 752.

Quatenus hoc simile est illi, quod mente videmus
Atque oculis, simili fieri ratione necesse est.

"*Hoc simile est illi;* this is like to that; namely, the image in the mind to the image which strikes the eyes; and therefore *quod mente videmus et quod oculis videmus*, what we see with the mind, and what we see with the eye, must be similarly produced." *Wakefield.*

[3] For example.] Ver. 754. *Forte.* "Quasi ita dicat: finge me aliquo casu leones videre." *Lambinus.* "Verbi gratiâ." *Creech.*

[4] By images of lions,——*and by* other *images of other things.*] Ver. 757. *Per simulacra leonum, cetera, quæ videt æquè, Nec minus, atque oculi.* "Per simulacra leonum *et* cetera *simulacra*, (i. e. aliarum rerum simulacra,) quæ videt æquè atque oculi." *Forbiger.*

been yielded up, death and the earth have already taken possession. This Nature of necessity brings to pass; *and* from this cause, that all the senses of the body, being obstructed *and bound up by sleep*, are at rest throughout the *several* members, and are unable to refute any false *appearance* by real facts. Besides, the memory lies inactive and torpid in sleep; and shows no disbelief *in appearances, or intimates* that he, whom the mind imagines that it sees alive, has long ago partaken of death and forgetfulness.

As to what remains *for consideration*, it is not surprising that images should move, and agitate their arms, and other members, with regularity; for it happens that *many* an image seems to do this in *our* sleep. *This is to be explained* in the following way; *that* when the first image passes off, and a second is afterwards produced in another position, the former then seems to have changed its gesture. This, doubtless, we must conceive to be done by a *very* rapid process; so great is the activity *of images*, and so great the number of things *from which they proceed;* and so great *too* is the abundance of atoms, that it may suffice for that which is to be perceived *by the senses*, at any time whatsoever. And many other questions are raised on these matters, and many points must be made clear by us, if we wish to explain these subjects distinctly.

In the first place, it is inquired why the mind immediately thinks of that very thing of which any one has desired to think.[1] Do images watch our pleasure, and, as soon as we wish, does an image present itself to us? If it is our desire *to think of* the sea, of the earth, or of the heaven, of assemblies of men, of a procession, of banquets, of battles, does nature create and prepare *images of* all *these things* at our word? Especially when the minds of different men in the same country and place, think of things entirely different?

What *shall we say*, moreover, when we perceive images in our sleep advance *before us* in order, and move their pliant limbs; when, *as we observe them*, they wave with ease their bending arms alternately, and repeat gesture *after gesture* with the foot corresponding to the look? Are images, forsooth, inspired with the art *of dancing*, and do they, skilled *in ges-*

[1] Of which any one has desired to think.] Ver. 781. *Quod cuique libido Venerit.* That is, *quod cuique libuerit* (*cogitare*).

ticulation, wander about, in order that they may make sport *for us* in the night time? Or will this rather be the truth, that we perceive that *variety of motions* in one *and the same portion of* time; as *in that time* in which one word is uttered,[1] many *smaller* portions of time, (which reason discovers to be *in it*,) are contained?———From this cause it happens, that at any time whatsoever, any images are ready at hand, prepared for all places; so great is their activity, and so great the abundance of objects *from which they proceed.* By this means, when the first *image* passes away, and a second is afterwards produced in another position, the first then seems to have changed its gesture.

And because *images* are subtle, the mind cannot acutely discern *any* but those which it earnestly endeavours *to discern;* all, therefore, which exist besides *these*, pass away *unnoticed*, unless *the mind* has thus prepared itself *and endeavoured to distinguish them.* The mind, accordingly, does prepare itself, and expects that that will occur which is consequent [2] *on that which has preceded;* so that it observes each particular occurrence. *Thus*, therefore, the effect is produced.

Do you not see, also, that the eyes, when they have begun to look at things which are small, exert and prepare themselves; and that we could not, without this *exertion*, clearly discern *them?* And even in respect, also, to objects easily distinguishable, you may observe, that if you do not apply your mind *to remark any one of them*, it is just the same as if it

[1] As *in that time* in which one word is uttered, *&c.*] Ver. 797.

Consentimus id, ut, quum vox emittitur unâ,
Tempora multa latent, ratio quæ comperit esse.

Does one time comprehend the motions of several times, as the pronunciation of one word comprehends the times of pronouncing each syllable? See Wakefield. Lachmann ejects the first of these two verses. It had previously been condemned by Lambinus and Faber. "Ou bien ne sera-t-il pas plus veritable, que dans le tems que nous exprimons notre pensée par quelque voix, il y a plusieurs instans cachez dans l' espace de ce tems, par le moyen desquels l' agilité des images aussi bien que leur ecoulement universel, fournit en quelque tems que ce soit, de quoi remplir la varieté de la pensée." *Coutures.*

[2] Expects that that will occur which is consequent, *&c.*] Ver. 807. *Speratque futurum, Ut videat, quod consequitur, rem quamque.* I have translated this according to the notion of Forbiger, as it is his text. *Speratque futurum quod consequitur, ut videat rem quamque.* Other editions (except Wakefield's) put no stop after *consequitur.*

were all the time removed and far distant *from you?* How is it therefore surprising, if the mind loses sight of *all* other *images*, except *those* concerning matters to which it is itself directed? Besides, we form opinions of great things from small indications, and thus lead ourselves into the delusion of deceit.

It happens, also, that sometimes a *second* image is not presented of the same kind *as the first*, but that that which was before a woman under our hands, seems to be before *us* changed into a man; or that one face, and one age follows after another; but at this, sleep and oblivion prevent us from wondering.

In these matters, *remember* that it is *necessary* diligently to shun this fault,[1] and to avoid *it* cautiously, as a *most grievous* error; *the fault, namely, of supposing that all the parts of animals were formed with a view to the uses to which they have been adapted;* lest you should suppose that the bright luminaries of the eyes were produced that we may be able to see *with them;* and that the pillars of the legs and thighs, built upon the feet, were united for this purpose, that we might

[1] In these matters, *remember* that it is *necessary* diligently to shun this fault, &c.] Ver. 824.

> Illud in his rebus vitium vehementer inesse
> Effugere errorem, vitareque præmetuenter,
> Lumina ne facias oculorum clara creata,
> Prospicere ut possimus.

It would occupy too much space to cite all the different readings of this passage, and the emendations which have been proposed. All commentators have seen that there is no satisfactory sense to be extracted from it as it stands. I have understood *memento:* (memento) inesse in his rebus vehementer effugere illud vitium (quasi) errorem, &c. The only successful correction is Lachmann's, who alters the first line to *Illud in his vitium vehementer rebus necesse est;* a conjecture which the shades of Lambinus and Faber may wonder that they missed.

"Lucretius maintains that the eye was not made for seeing, nor the ear for hearing. But the terms in which he recommends this doctrine show how hard he knew it to be for men to entertain such an opinion. * * * Undoubtedly the poet is so far right, that a most 'vehement caution and vigilant premeditation' are necessary to avoid the vice and error of such a persuasion. The study of the adaptations of the human frame is so convincing, that it carries the mind with it, in spite of the resistance suggested by speculative systems." *Whewell's Bridgewater Treatise*, p. 351.

take long steps on the road; and, moreover, that the fore-arms fitted to the stout upper arms, and the hands ministering on either side, were given *us* that we might perform *those offices* which would be necessary for *the support of* life.

Other *suppositions* of this sort—whatever explanations *men* give—are all preposterous, reasoning being *thus* perverted. For nothing was produced in the body to the end that we might use it; but that which has been produced, *being found serviceable for certain ends*, begets use. Neither was *the faculty of* seeing in existence before the light of the eyes was made, nor *that of* speaking with words before the tongue was formed; but rather the origin of the tongue long preceded speech, and the ears were made long before any sound was heard; and, in fine, all members, as I think, existed before there was any use of them *discovered*. They could not, therefore, have been produced for the sake of being used.

But, on the contrary, to engage in battle with the hand, and to tear the limbs, and to pollute the body with gore, was *practised* long before bright darts were hurled; and nature compelled us to avoid a wound, before the left hand, by the help of art, presented the defence of a shield.

And, certainly, to commit the wearied body to rest is of much more antiquity than the soft cushions of the couch; and to quench the thirst was practised before cups *were invented*.

Such things as these, then, which were found out from experience and *the objects of* life, may be believed to have been invented for the purpose of using *them;* those things, however, which were all first produced independently, gave a knowledge of their utility afterwards. Of which kind, especially, we see that the senses and members of the body are. Wherefore again and again *I say*, it is impossible for you to believe[1] that they could have been produced for the sake of use.

This, also, is not to be wondered at, that the very nature of the body of every animal requires food. For I have shown that many atoms pass off and recede from substances in many ways; but the most numerous must *pass off* from animals; because they are exercised by motion, and many particles are carried forth, urged from the interior *of the body*, by perspiration; many, *also*, are exhaled through the mouth, when they

[1] It is impossible for you to believe.] Ver. 857. *Procul est ut credere possis.*

pant from weariness. By these means, therefore, the body wastes, and all its nature is undermined; a state on which pain is attendant. On this account food is taken, that it may support the limbs, and, being given at intervals, may recruit the strength, and repress the eager desire of eating throughout the organs and veins.

Liquid also descends into all parts *of the body*, whatsoever require liquid; and the moisture, coming into *the frame*, dissipates the many collected atoms of heat, which cause a burning in our stomach, and extinguishes them like fire, *so* that arid heat may no longer dry up *our* limbs. Thus, therefore, you see, panting thirst is expelled from our bodies; thus the pining desire *of food* is satisfied.

I will now state how it comes to pass that we can advance our steps when we please, and *how* it is given us to move *our* limbs out-of-the-direct-line;[1] and what cause is wont to push forward this great weight of our body. Do thou, *my friend*, attentively-receive my instructions.

I affirm, *then*, that IMAGES OF GOING first approach to the mind, and impinge on the mind, as we observed before *respecting images in general.* Thence arises will, for no *man* begins to do any thing, before his mind has discerned what it will do. *And* according to what it discerns, is the image of his action.[2] When, therefore, the mind so stirs itself, that it desires to proceed and move forward, it immediately acts on the substance of the soul, which is distributed in the whole body, *and* through the limbs and joints; and *this* is easily done, since *the substance of the soul* is held united *with the mind.* That *substance of the soul* forthwith acts upon the body; and thus, by degrees, the whole mass *of the man* is protruded and moved *forwards.*

The body at that time, moreover, opens its pores, and the air, which is always easily excited to motion, enters, as it *naturally* must indeed, through the open spaces, and penetrates

[1] Out-of-the-direct-line.] Ver. 879. *Varè.* Wakefield's reading for the *variè* of other editors.

[2] *And* according to what it discerns is the image of his action.] Ver. 886 *Id, quod providet, illius rei constat imago.* "*Id*, nempe secundum, *κατὰ*." *Wakefield.* So likewise *Forbiger.* Lambinus reads *At quod*, &c., and interprets the passage thus: "That which the mind foresees is the image of that thing which the man wills to do."

the passages abundantly, and is thus dispersed through every minute portion of the body; thus, therefore, the body, by two several powers,[1] is made to move along as a ship with sails and wind.

Nor yet is it wonderful, in these matters, that atoms so small can wield so great a body, and turn about all our weight. For the wind, *though but* light *and* of thin substance, drives forward a large ship with vast power; and one hand rules the vessel, with whatever speed it may be going; while one helm turns it in any direction. And a machine, by the help of wheels and pulleys, lifts many *bodies* of great weight, and raises them on high with *but* a slight force.

And now I shall explain by what means sleep spreads rest through our limbs, and dispels the cares of the mind from our breast; *but I shall do this* rather in agreeably-sounding than in numerous verses, as the short melody of the swan[2] is better than the croak of cranes, dispersed among the clouds of heaven, *driven by* the south wind. Do you only, *O Memmius*, devote to me your attentive ears and discerning mind, that you may not deny what I say to be possible, and depart from me with a breast repelling true precepts, when you yourself are in fault, and *yet* cannot perceive *that such is the case.*

In the first place, sleep occurs when the substance of the soul has been disturbed throughout the *several* members, and has partly seceded from the body, (*as* being driven forth abroad,) and has partly, *as* being more concentrated, retreated into the interior *of the body;* for then, at length, *when the frame is in this state*, the limbs are relaxed and lose their power. Since there is no doubt but that this *our vital* sense exists in us by means of the soul, which *sense* when sleep hinders from being *exerted*, we must then suppose that our soul is disturbed, and expelled from *the body; but* not wholly, for *if it were all withdrawn*, the body would lie steeped in the eternal cold of death, as, in that case, no part of the soul would remain latent in the members, (*concealed* as fire lies hidden under thick ashes,) whence the sense might be suddenly rekindled throughout the limbs, and flame, *as it were*, rise from secret heat.

But by what means this change *from wakefulness to sleep*

[1] By two several powers.] Ver. 897. *Rebus utrinque duabus.* *Viz.* by the soul and the air.

[2] Short melody of the swan, *&c.*] See on ver. 181.

is produced, and how the soul may be disturbed, and the body languish, I will explain. Do you, *my friend*, take care that I may not pour out my words to the winds.

In the first place, it necessarily happens that the body since it is touched by the breezes of the air *to which it is* exposed, must be externally assailed and harassed by the frequent impulse of that *air;* and, for this reason, almost all *animated* bodies are covered with hide, or even with shells, or with hard skin, or bark. This same air, likewise, impinges on the interior part *of the body of animals*, when, as they breathe, it is drawn in and respired. For which reason, when the body is affected from both causes,[1] and when assaults penetrate through the small pores of our frame to *its* primary parts and first elements, a labefactation, as it were, takes place by degrees throughout our members; for the positions of the elements of the body and mind are disturbed, so that part of the soul is drawn forth from them, and part retires hidden into the interior; part also, dispersed throughout the limbs, cannot remain united together, nor perform its ordinary motions mutually *with other parts;* for nature obstructs the communications and passages, and therefore, the motions *of the atoms* being changed, sense wholly fails.[2] And since there remains nothing that can, as it were, prop up the limbs, the body becomes weak, and all *its* members languish; the arms and the eye-lids fall, and the hams often subside with a sinking lassitude,[3] and relax their strength.

Sleep, too, follows *upon taking* food, because food, while it is being distributed through all the veins, produces the same *effects* which the air produces; and that sleep is far the most heavy which you take when full or weary; because most of the atoms of *the frame* are then disturbed, being shaken with much effort. By the same means, a deeper concussion in the substance of the soul takes place, as well as a larger ejection of it without, and *it becomes* more divided in itself and distracted within.

[1] Affected from both causes.] Ver. 940. *Utrinque secus—vapulet.* "*Utrinque secus*, that is, *ex utrâque* parte, internally and externally." *Wakefield.*

[2] Wholly fails.] Ver. 950. *Abit altè*, i. e. *penitus, omnino.*

[3] Sinking lassitude.] Ver. 954. *Cubanti tamâ.* "By *tama* is meant excessive fatigue from walking, when the blood settles in the legs, and causes a swelling." *Festus.*

And in general, as each *of us*, having pursued any study, is devoted to it *in his thoughts*, or in whatever occupation we have been much engaged previously,—and the mind has been more exerted in that pursuit,—we seem, for the most part, to go through the same employments in sleep. Lawyers *seem* to plead causes and to make laws; generals to fight and engage in battles; sailors to wage settled war with the winds; and myself to pursue this *work*, and investigate perpetually the nature of things, and to explain it, when discovered, in the language of my country.

Thus other studies and arts seem generally, in sleep, to occupy the minds of men with delusions. And whatsoever *persons* have given continual attention to games *and spectacles* for many days in succession, we generally see that, in those persons, when they have ceased to observe those *objects* with their *bodily* senses, there are yet passages remaining open in the mind, where the same images of *the same* objects may enter. For very many days, therefore, those same *images* are presented before their eyes, so that they seem, even when awake, to see *figures* dancing, and moving their pliant limbs, and to listen with their ears to the liquid music and speaking chords of the lyre; and, likewise, to perceive the same assembly, and *to contemplate*, at the same time, the various decorations of the scene shining *before them*. Of so great influence is study and inclination, and so much difference does it make in what pursuits, not only men, but indeed all animals, have been accustomed to be engaged. For you will see stout horses, when their limbs shall be stretched in sleep, yet perpetually perspiring and panting, and apparently exerting their utmost strength for the palm *of victory*, or often *starting* in their sleep as if the barriers were *just* set open.

And the dogs of huntsmen, when *stretched* in gentle repose, often throw out their legs on a sudden, and hurriedly utter cries, and frequently draw in the air with their nostrils, as if they were pursuing the *newly*-discovered traces of wild-beasts; and oftentimes, after they are awakened, they follow in imagination the empty images of stags, as if they saw them turned to flight, until, their delusions being dispelled, they return to their senses. And the fawning breed of dogs that are accustomed to the house, begin *at times* to rouse *themselves* and start up from the ground, just as if they saw strange faces

and looks. And the more fierce any breeds are, the more must the same *breeds* show fierceness in their sleep.

But various birds, *likewise*, take flight, and suddenly disturb with their wings the groves of the gods during the night, if, in their quiet sleep, hawks have appeared, pursuing and flying after them, to offer battle and *threaten* hostilities.

Moreover the minds of men, whatever great things they effect with vast efforts *in the day*, frequently perform and carry on the same things also during their sleep. Kings storm *cities*,[1] are taken prisoners, join battle, raise a cry as if they were being stabbed on the spot. Many struggle-desperately, and utter groans *as if* in pain, and fill all parts *around* with loud shrieks, as if they were torn by the bite of a panther or savage lion. Many in sleep speak of important matters; and *men* have very often made *in dreams* a revelation of their own guilt. Many, *apparently*, die; many show terror through their whole frame, like persons who are casting themselves to the ground from high mountains, and, as if deprived of their senses, (*so* disturbed *are they* by the agitation of their body,) scarcely, after sleep, recover themselves.

A thirsty man, also, *in his dream*, often sits near a river or pleasant fountain, and almost swallows up the whole stream with his mouth. Boys, too, bound fast in sleep, fancy that, being near a tank or broken vessel, they are raising up their garment, *and* pour forth the bottled liquid[2] of the whole body, when the Babylonian *coverlets*, of magnificent splendour, are saturated.

Or when, at length,[3] the full ripe hour is reach'd
Of vigorous manhood, and the genial stores

[1] Kings storm *cities*.] Ver. 1010 *Reges expugnant*. "Kings, whose minds are agitated with mighty thoughts in the day, are naturally occupied with similar thoughts during the night, and accordingly *storm*, e. g. towers, fortresses. Thus *reges* will be the nominative case, which I think proper to mention, because some commentators have injudiciously taken it for the accusative." *Wakefield*.

[2] Bottled liquid.] Ver. 1025. *Humorem saccatum*.

[3] Or when, at length, &c.] Ver. 1027. The remainder of this book it is thought advisable to give in the version of Dr. Good. In transcribing it for the press, six or seven words, at most, have been altered, partly to make nearer approaches to the text, and partly for other reasons. What Lucretius here presents to his reader, is a series of philosophical and moral observations and precepts. They

Crowd through the members, ceaseless then, at night,
Forms of the fair, of look and hue divine,
Rush on the spirit, and the ducts of love
So stimulate, where throngs the new-born tide,
That, as the tender toil were all achiev'd,
Full flows the stream, and drowns the snowy vest.
  For, as we erst have sung, the seeds of life
First spring when manhood first the frame confirms.
And as on various functions various powers
Alone can act propulsive, human seeds
By nought but human beauty can be rous'd.
These, when once gender'd from their cells minute
O'er every limb, o'er every organ spread,
Crowd in full concourse tow'rds the nervous fount
By nature rear'd appropriate; whence abrupt
Excite they oft, as forms of beauty rise,
The scenes at hand, the regions ruled by love.

are subjects, says Good, "that naturally fall within the scope of a poem written expressly upon the *Nature of Things*," and "our poet is entitled," he adds, "to the joint thanks of naturalists and anatomical philosophers for irradiating their dark and thorny paths with the light and fire of the Muses. * * * Lucretius is a lecturer upon natural philosophy; he admits us to his theatre, and gravely and scientifically developes the principles of this important subject. * * * A serious and attentive reader of this truly learned, as well as poetical discourse, whether male or female, cannot possibly, I think, peruse it without the acquisition of some degree of useful knowledge; and even the medical professor himself cannot but be astonished at the copiousness of his research, and the accuracy that accompanies much of its reasoning."

"There is here no impurity of language, nothing that may not be mentioned with propriety. If any thing shall appear objectionable, such appearance is to be attributed, not to the fault of the poet, but to that of the reader." *Faber.*

"De amore, sterilitate, fœcunditate, et aliis omnibus hanc materiam attingentibus, liberiùs forsan et apertiùs, quàm nonnulli vellent, disputat; sed philosophis saltem, vel in his tractandis, videtur esse indulgendum." *Wakefield.*

Let us also, for once, transcribe a note from Busby. "I have observed," says the Doctor, "that my author addresses himself only to high and cultivated intellect. The remark applies here with peculiar force. Lucretius was too much of a man of sense, too much of a philosopher, too well acquainted with human feelings, not to know that the higher order of minds are little liable to seduction from the gross exposures of nature; and only to such minds is his poem addressed."

Then springs the tender tumour, the warm wish
Full o'er the foe, the luscious wound who deals,
With dext'rous aim to pour the high-wrought charge,
And full contending in the genial fight.
So falls the victim on the part assail'd:
With the red blood the glist'ning bruise so swells;
And o'er th' assassin flows the tide he draws.
So he who feels the shaft of love propell'd
From the dear form that charms him, tow'rds the spot
Aims, whence the wound proceeds; supreme he pants
To join the contest, and from frame to frame
Pour the rich humour; for the fierce desire,
Now felt, assures how vast the bliss to come.
This, this is Venus: this he deems true love;
Hence flow the drops delicious that the heart
Erode hereafter, and its train of cares.
For, though the form adored be absent, still
Her phantoms haunt the lover, and his ear
Rings with her name, whate'er the path pursued.
Yet fly such phantoms, from the food of love
Abstain, libidinous; to worthier themes
Turn, turn thy spirit; let the race at large
Thy liberal heart divide, nor lavish, gross,
O'er one fond object thy exhausted strength,
Gend'ring long cares, and certain grief at last.
For love's deep ulcer fed, grows deeper still,
Rank, and more pois'nous; and each coming day
Augments the madness, if the wretch, perchance,
Heal not old wounds by those of newer date,
From fair to fair wide-wand'ring, or his mind
Turn from such subjects to pursuits unlike.
Nor are the joys of love from those shut out
Who brutal *lust* avoid; the pure of heart
Far surer pleasures, and of nobler kind,
Reap, than the wretch of lewd and low desires,
Who, in the moment of enjoyment's self,
Still fluctuates with a thousand fears subdued;
O'er the fair wanton, dubious, long who hangs,
What charm his eyes, his hands shall first devour:
Till fixt, at length, with furious force the spot
Painful he presses, through his luscious lips

Drives his keen teeth, and every kiss indents;
Striving in vain for joys unmix'd, and urg'd
By latent stimulus the part to wound,
Where'er its seat, that frenzies thus his soul.
But Venus softly smooths the wrongs endur'd,
And mutual pleasures check the lover's rage.
  Then hopes he, too, in the same form to quench
The madd'ning fires where first the flame arose.
Vain hope, by every fact disproved; for this,
The more the soul possesses, still the more
Craves she with keenest ardour. Foods and drinks
As through the frame they pass, by toil worn out,
Fill many a huge interstice; obvious whence
Dies the dread sense of hunger and of thirst;
But human beauty, and the rosy cheek,
With nought the panting lover can endow
But fruitless hopes, but images unsound,
Scatter'd by every wind. As, oft, the man,
Parch'd up with thirst, amid his dreams to drink
Strives,[1] but in vain, since nought around him flows
But void, unreal semblances of floods;
So with her votaries sports the power of love,
False phantoms sole presenting, nor can sight,
Where'er it rove, be sated with the gaze,
Nor can the lover's lawless fingers tear
Aught from his idol, o'er her as he hangs,
And the full power of every charm explores.
  E'en when, in youth's prime flower, his panting frame
Enclasps her frame that pants, when all his soul
Expects the coming bliss, and Venus waits
To sow the fertile field, though then amain
In amorous fold he press her, lip to lip
Join, and drink deep the dulcet breath she heaves,
'Tis useless all; for still his utmost rage
Can nought subtract; nor through the fair one force

[1] Parch'd up with thirst, amid his dreams to drink Strives, &c.] Ver. 1090. *Ut bibere in somnis sitiens quum quærit, et humor Non datur.* Isaiah xxix. 8, "It shall even be as when a hungry man dreameth, and, behold, he eateth; but he awaketh, and his soul is empty: or as when a thirsty man dreameth, and, behold, he drinketh; but he awaketh, and, behold, he is faint, and his soul hath appetite."

His total frame, commingled with herself.
Yet oft thus strives he, or thus seems to strive;
So strong the toils that bind him; so complete
Melt all his members in the sea of love.
And though, when now the full-collected shock
Pours from the nerves, some transient pause ensue,
Yet short its period; the fond fever soon,
The frenzy quick returns, and the mad wretch
Still pants to press that which he press'd before;
Nor aught of antidote exists, so deep
Pines he, perplext, beneath the latent ill.
  Then, too, his form consumes, the toils of love
Waste all his vigour, and his days roll on
In vilest bondage. Amply though endow'd,
His wealth decays, his debts with speed augment,
The post of duty never fills he more,
And all his sick'ning reputation dies.
Meanwhile rich unguents from his mistress laugh,
Laugh from her feet soft Sicyon's shoes superb;[1]
The green-ray'd emerald o'er her, dropt in gold,
Gleams large and numerous; and the sea-blue silk,
Deep-worn, enclasps her, with the moisture drunk
Of love illicit. What his sires amass'd
Now flaunts in ribands, in tiaras flames
Full o'er her front, and now to robes converts
Of Chian loose, or Alidonian mould;[2]
While feasts and festivals of boundless pomp,
And costliest viands, garlands, odours, wines,

[1] Unguents from his mistress laugh, Laugh from her feet soft Sicyon's shoes superb.] Ver. 1121. *Unguenta et pulchra in pedibus Sicyonia rident.* Shoes from Sicyon were worn only by the showy and luxurious. "If you were to offer me a pair of Sicyonian shoes," says Cicero, (De Orat. i. 54,) "I should not wear them, because, although they might be easy, and fit my foot well, they would appear effeminate."

[2] Robes—Of Chian loose, or Alidonian mould.] Ver. 1126. *In pallam atque Alidensia Chiaque.* Wakefield thinks that *Alidensia* is for *Alindensia*, from *Alinda*, a city of Caria, referring to Plin. N. H. v. 29. *Chia*, also, he derives, not from the island Chios, but from Chios, another town of Caria, mentioned by Steph. Byzant.; so that one epithet, he says, supports and illustrates the other. Lambinus and others read *Melitensia Ceaque*, from *Melita*, or Malta, (*Melitensis vestis*, Cic. Ver. ii. 74,) and Ceos, an island in the Ægean.

And scatter'd roses ceaseless are renew'd.
But fruitless every art; some bitter still
Wells forth perpetual from his fount of bliss,
And poisons every flow'ret. Keen remorse
Goads him, perchance, for dissipated time,
And months on months destroy'd; or from the fair
Haply some phrase of doubtful import darts,
That, like a living coal, his heart corrodes;
Or oft her eyes wide wander, as he deems,
And seek some happier rival, while the smile
Of smother'd love half-dimples o'er her cheeks.
Such are the ills that on amours attend
Most blest and prosp'rous; but on those adverse
Throng myriads daily, obvious and more keen.
Hence, by the muse forewarn'd, with studious heed
Shun thou the toils that wait; for easier far
Those toils to shun, than, when thy foot once slides,
To break th' entangling meshes and be free.
Yet though insnar'd, and in the silly net
Led captive, thou may'st still, if firm of mind,
And by these numbers sway'd, thy foot release.
First the defects, then, of the form ador'd,
Of mind, of body, let thy memory ne'er
One hour forget; for these full oft mankind
See not, by passion blinded; while, revers'd,
Charms they bestow which never were the fair's.
Hence frequent view we those, each grace denied,
The coarse, the crooked, held in high esteem.
And lovers laugh o'er lovers, and exhort
Offerings to Venus since so vilely sway'd,
While yet themselves are sway'd more vilely still.
To such the black assume a lovely brown;
The rank and filthy, negligence and ease;
The red-eyed is a Pallas; the firm-limb'd,
All bone, a bounding roe; the pigmy dwarf,
A sprightly grace, all energy and wit;
The huge and bulky, dignified and grand;
The stammerer lisps; the silent is sedate;
The pert virago, spirit all and fire;
The hectic, fine and delicate of frame;
The victim worn with pulmonary cough,

On life's last verge, a maid of matchless waist;
The broad, big-bosom'd, Ceres full display'd,
As from the bed of Bacchus; the flat-nos'd
Of monkey shape, a Satyr from the woods;
And the broad-lipp'd, a Nymph for kisses form'd.
  But countless such conceits, and to narrate
Idle; yet grant the frame ador'd possess'd
Of face divine, that all the power of love
Plays o'er each limb symphonious, others still
Exist of equal beauty; still ourselves
Once liv'd without her; and full well we know
She, too, each art essays the baser need,
And so with scents bedaubs her that her maids
Far fly oppress'd, and vent their smother'd laugh.
  Then, too, the wretched lover oft abroad
Bars she, who at her gate loud weeping stands,
Kissing the walls that clasp her; with perfumes
Bathing the splendid portals, and around
Scattering rich wreaths and odoriferous flowers.
Yet when at length admitted, the first breath
So deep offends him, he some motive seeks
Instant to quit her; his long-labour'd speech
Of suffering drops, and owns himself a fool,
That for one moment he could deem her crown'd
With charms the race of mortals ne'er can boast.
This know full well the Paphian nymphs, and, deep
Behind the scenes of action, each defect
Strive they to hide from him they fain would sway.
But vain th' attempt; for oft the mind will guess
The latent blemish, and the laugh unfold.
Whence those of soul ingenuous frankly own,
Frequent, those faults which none can all escape.
  Yet not for ever do the softer sex
Feign joys they feel not, as with close embrace,
Breast join'd to breast, their paramours they clasp,
And print their humid kisses on their lips.
Oft from their hearts engage they, urg'd amain
By mutual hopes to run the race of love.
Thus nature prompts; by mutual hopes alone,
By bliss assur'd, birds, beasts, and grazing herds,
The task essay; nor would the female else

E'er bear the burden of the vigorous male,
By mutual joys propell'd. Hast thou not seen,
Hence tempted, how in mutual bonds they strive
Work'd oft to madness? how the race canine
Stain with their vagrant loves the public streets,
Diversely dragging, and the chain obscene
Tugging to loose, while yet each effort fails?
Toils they would ne'er essay if unassur'd
Of mutual bliss, and cheated to the yoke.
Whence o'er and o'er the bliss must mutual prove.
If when the male his genial energy
Imparts, the female deep her breath retract
Transported most, the race produc'd will, then,
From female store prove female; if revers'd,
From store paternal, male. But when the form
Blends both its parents' features, it ascends
From equal powers of each; the impulse warm
Rousing alike, through each conflicting frame,
The seeds of latent life in scale so nice
That neither conquers, nor to conquest yields.
Oft view we, too, the living lines portray'd
Of ancestors remote; for various seeds,
Commingled various, through the parent frame
Lurk, which from race to race preserve entire
The form, the features of the anterior stock.
Diversely such the power creative blends;
Whence oft the voice revives, the hair, the hue,
The full complexion of the race deceas'd;
For these as sure from seeds defin'd ascend
As e'en the face, the body, or the limbs.
Then, too, though male the fetus, female stores
Aid the production; while, if female form'd,
The tide paternal mixes in the make;
For both must join, or nought can e'er ensue.
But obvious this, that when the semblance more
Inclines to either, the prevailing sex
Chief lent the seeds of life, and rear'd complete
The virgin embryo, or incipient man.
Nor ever interfere the gods above
In scenes like these, the genial soil lock up,
Or curse with barren love the man unblest,

No lovely race who boasts to hail him sire,—
As deem the many, who, in sadness drown'd,
Oft offer victims, and, with fragrant gums,
Kindle the blazing altar, wearying heav'n
Vainly, to fill the void reluctant womb.
For blank sterility from seeds ascends
Too gross, or too attenuate; if the last,
Ne'er to the regions that generic spread
Cleave they, rejected instant as propell'd.
But if too gross the genial atoms, dull
Move they, and spiritless, or never urg'd
With force sufficient, or of power devoid
The puny ducts to pierce, or, pierc'd, to blend
Harmonious with the vital fluid found.
For love harmonious, whence increase alone
Can spring, oft differs largely; easier far
Some filling some, and others easier fill'd
And gravid made by others; whence, at times,
Those, many a Hymen who have erst essay'd
Vainly, at length th' appropriate stores acquire,
And feel the lovely load their wombs enrich.
While he, perchance, whose prior banns forbade
All the fond hope of offspring, happier now
A mate has found of more concordant powers,
And boasts a race to prop his crumbling age.
So much imports it that the seeds of life
With seeds should mix symphonious, that the gross
Condense the rare, the rare the gross dilute,
And man with woman duly pair'd unite.
Much, too, concerns it what the foods employ'd;
For some augment the genial stores, and some
Dissolve their crasis, and all power destroy.
Nor small the moment in what mode is dealt
The bland delight. The sage who views minute
Herds, and the savage tribes by nature led,
Holds that the virtuous matron chief conceives,
When, with subsiding chest, and loins erect,
Her dulcet charms she offers, fittest then
The luscious tide t' absorb; for nought avail
Exerted motions, the perpetual heave
Of frame high-strain'd and ever-labouring lungs

These, rather, urg'd beneath the tender fray,
All fruit prohibit; since the genial share
Oft turn they from the furrow as it holds
Its course direct, and break th' impinging shock.
And hence the wanton mistress acts like these
Frequent indulges, to preclude increase,
And more transport the lawless form she clasps:
Arts the chaste matron never needs essay.
  Nor from the darts of Venus, nor the smile
Of gods above, is she of homelier make
Frequent belov'd; the praise is all her own.
By her own deeds, by cleanliness most chaste,
And sweet consenting manners, the delight
Lives she of him who blends his lot with hers.
  Such virtues must prevail, and day o'er day
Perfect their power; for, though of gentlest kind,
Yet urg'd perpetual, such the sternest heart
Must gradual soften, and at length subdue.
Hast thou not seen the fountain's falling drops
Scoop in long time the most obdurate stone?

BOOK V.

ARGUMENT.

Lucretius commences with the praise of Epicurus, and shows that he deserves to be called a deity more than any other benefactor of mankind, ver. 1—55. He then states the subject of the present book, ver. 56—91, and proceeds to show that the world is not eternal, ver. 92—110, and that the heavenly bodies are not, as the Stoics thought, portions of the divine nature, nor, as the vulgar suppose, the abode of the gods, ver. 111—156. That the world was not made by the gods for the sake of man, or for their own pleasure, may be concluded from the evils existing in it, and from other arguments, ver. 156—235. As the four elements are changeable and perishable, we must consider that the world which they constitute is of a similar nature, ver. 236—324. That the world had a beginning, appears from the recent commencement of its history, and the present imperfection of many arts among its inhabitants, ver. 325—351; that it will have an end, all reasoning respecting it conspires to render probable, ver. 352—416. The formation of the different parts of the world according to the cosmogony of Epicurus, ver. 417—509. Causes of the motions of the heavens, and of the earth's remaining at rest, ver. 510—564. The magnitudes of the heavenly bodies, ver. 565—612. Their phænomena, and the causes of day and night, ver. 613—702. Of the phases of the moon, and the eclipses of the moon and sun, ver. 703—777. The production of plants, animals, and man, ver. 778—834. Nature, in her early efforts at production, may have generated monsters, but not such as Chimæras or Centaurs, ver. 835—922. The rudeness of the early life of man, the commencement of culture, and the invention of speech, ver. 923—1089. The discovery of fire, and its effects; the progress of society and government, ver. 1090—1159. The rise of religion from ignorance of natural causes, ver. 1160—1239. The discovery of metals, and the origin and progress of the arts, both useful and elegant, ver. 1240—1456.

WHO is able, with mighty genius, to compose a strain worthy of the majesty of THINGS, and of these discoveries *of Epicurus?* Or who has such power over words, that he can compose eulogies proportionate to the merits of him, who has left to us such blessings obtained and acquired by his own intellect? No one, as I think, formed of a mortal body, will *ever* be *able.* For if we ought to speak as the known dignity of the subjects *which he expounded* requires, he was a god, a god, *I say,* O illustrious Memmius, who first discovered that discipline of life[1] which is now called WISDOM; and who, by the science *of philosophy,* placed *human* existence, from amid so great waves *of trouble,* and so great darkness *of the mind,* in so tranquil *a condition* and so clear a light.

For compare *with his investigations* the ancient discoveries of others *which are called* divine; as Ceres is said to have pointed out corn to mortals, and Bacchus the liquid of wine produced from the grape; though life, nevertheless, might have continued without these gifts, as it is reported that some nations even now live *without them;* but *men* could not have lived well *and happily* without a pure *and undisturbed* breast. For which reason he, from whom the sweet consolations of existence, now spread abroad through mighty nations, calm the minds *of men,* seems to us the more justly to be *accounted* a god.

But if you shall imagine that the deeds of Hercules excel *his,* you will be carried far away from sound reasoning. For what harm would those vast jaws of the Nemæan lion, and the bristly Arcadian boar, do to us at present? Or what *injury* could the bull of Crete, and the Hydra, the pest of Lerna, defended with poisoned snakes, *inflict on us at this time?* Or how could the triple-breasted strength of the three-fold Geryon *hurt us?* And how could the horses of Diomede, breathing fire from their nostrils, *dwelling* near Thrace, and the Bistonian regions, and Ismarus; or *how could* the Arcadian birds,

[1] Discovered that discipline of life, &c.] Ver. 9. *Vitæ rationem invenit eam quæ nunc appellatur sapientia.* Wakefield adduces, on this passage, Cic. de Fin. i. 5, where the philosophy of Epicurus is first called *Epicuri ratio,* and afterwards *disciplina. Sapientia* is equivalent to *true philosophy.* Horace (Od. i. 34, 2) alludes to the doctrines of Epicurus as *insaniens sapientia,* "an erring or insane philosophy."

formidable with their hooked talons, inhabiting *the lake* Stymphalus, have so much annoyed us *that we should think much of their destruction?* Or how, I pray, would the fierce serpent, with his stern looks *and* huge body, that watched, as he encircled the stem of a tree, the shining golden apples of the Hesperides, have interfered with our comfort, when he lived-near the shore of the ocean, and the rough *waters* of the sea, whither neither any countryman of ours goes, nor *any* barbarian dares *to approach?*

How, I ask, would other monsters of this kind, which have been killed, hurt us, if they had not been conquered, *and were now* alive? Not at all, as I am of opinion; *for* thus, even now, the earth is abundantly overrun[1] with wild beasts, and filled with alarming terror throughout the groves, and vast mountains, and deep woods; *but these are* places which we for the most part have power to avoid.

But unless the mind is purified, what contests and dangers must we incur in spite of our *utmost* efforts! How many bitter cares, *arising* from lust, tear the man distracted *by them*, and how many consequent terrors! Or what *ills* do pride, uncleanness, wantonness, *produce!* How great calamities do they cause! *And* what *evils* do luxury and sloth *generate!*

Will it not be fit, then, that we should deem this man, who subdued all these *evils*, and expelled them from the mind, not with arms, *but* with words, worthy *to be ranked* in the number of the gods? Especially when he was accustomed to give precepts, *both* numerous and divinely *expressed*, concerning the immortal gods themselves, and to set forth in his instructions the whole nature of things.

This is he on whose track I have entered, whilst I pursue his system *of philosophy*, and show, in *these* expositions, how necessarily all things individually continue-their-existence according to that law by which they were produced, and how impotent they are to break the strong conditions of time *and destiny*.[2] In which class *of things produced and limited in ex-*

[1] Is abundantly overrun.] Ver. 40. *Ad satietatem—scatit.* "*Ad satietatem*, i. e. πρὸς κόρον, *valde*, very much or abundantly." *Lambinus.*

[2] To break the strong conditions of time *and destiny.*] Ver. 59. *Validas ævi rescindere leges.* "To endure beyond the bounds fixed and appointed by nature." *Creech.*

istence, the substance of the mind, above all, has been found *to be; and has been demonstrated* to be formed of a generated consistence at first, and to be unable to endure uninjured through vast eternity. But *I have also made it plain*, that when we seem to behold him, in our sleep, whom life has left, *mere* images are accustomed to deceive the mind.

For what remains, the course of my subject has now brought me to the point at which I have to demonstrate that the world[1] consists of dissoluble matter, and *that it* had also a beginning; and *to show* by what means the combination of matter established the earth, the heaven, the sea, the stars, the sun, and the globe of the moon; and what living creatures sprung from the earth, and what, *though believed to have existed*, have at no period been produced.[2] *I have also to tell* how the human race, with various speech, began to hold intercommunication[3] by means of names of things; and by what process that *oppressive* fear of the gods entered the breasts of men; *a fear* which maintains throughout the world sacred temples, lakes, groves, altars, and images of the divinities.

I shall besides explain by what force ruling nature guides the courses of the sun and the paths of the moon, lest, perchance, we should think that these *bodies* pursue eternal revolutions unrestrained *and* of themselves, in order to promote the growth of fruits and living creatures; and lest we should sup-

[1] The course of my subject has now brought me to the point at which I have to demonstrate that the world, *&c.*] Ver. 65.

Nunc huc rationis detulit ordo
Ut mihi, mortali consistere corpore mundum,
Nativumque simul, ratio reddunda sit, esse.

"He now proceeds to show that the world was produced, and will perish. * * * Plato supposed that the world had a beginning, but that it will not have an end; not because it is eternal by its own nature, or because he denies that every thing which is born decays; but on account of the goodness of the deity who made it, and who will not suffer a work so excellent and perfect to fall to pieces. Aristotle thought that it had no beginning and will have no end. Epicurus believed both that it had a beginning and will have an end." *Lambinus.* "To the point at which" answers to *huc—ut.*

[2] What—have at no period been produced.] Ver. 71. *Quæ nullo sint tempore natæ.* "Understand Chimæras, Centaurs, Scyllæ, Hermaphrodites, *&c.*" *Faber.*

[3] To hold intercommunication.] Ver. 73. *Inter se vesci.* "*Vesci*, i. e. to live, or enjoy life, by the formation of society; in a secondary sense of the word." *Wakefield.*

pose that they are guided by any plan of the gods. For if *those* who have fairly understood that the gods pass a life free from care, nevertheless wonder, meanwhile, how things can severally be carried on, especially in those matters which are seen in the ethereal regions over *our* heads, they are carried back again to *their* old notions of religion, and set over themselves cruel tyrants, whom they unhappily believe able to do all things; being *themselves* ignorant what can, and what cannot, be done, and by what means limited power, and a deeply fixed boundary, are *assigned* to every thing.

To proceed, then, and to delay you no longer with promises, contemplate, in the first place, the sea, and the earth, and the heaven; the triple nature of which, *dear* Memmius, (three bodies, three forms so dissimilar, three substances *of* such *a different consistence*,) one day will consign to destruction; and the mass and fabric of the world, sustained through *so* many years, shall sink *into total dissolution.*[1]

Nor does it escape my consideration, how new and wonderful a subject it is for your reflection, that there will be an end to the heaven and the earth; and how difficult it is for me to convince *you* of this with arguments; as it generally happens, *indeed*, when you offer to the ear a subject hitherto strange *to it*, and yet cannot submit it to the sight of the eye, or put *it* into the hand; *the avenues* through which the nearest main road[2] of belief leads into the human breast and the regions of the mind. But yet I will express *my thoughts;* fact itself, perhaps, will bring credit to my words, and you will see, *per-*

[1] The mass and fabric of the world—shall sink *into total dissolution.*] Ver. 97. *Ruet moles et machina mundi.*

> Flowers of the sky! ye, too, to age must yield,
> Frail as your silken sisters of the field!
> Star after star from heaven's high arch shall rush,
> Suns sink on suns, and systems systems crush;
> Headlong, extinct, to one dark centre fall,
> And Death, and Night, and Chaos, mingle all!
> *Darwin's Botanic Garden*, iv. 371.

[2] *The avenues* through which the nearest main road, *&c.*] Ver. 103. *Via quâ munita fidei Proxima fert humanum in pectus templaque mentis.* "*Via proxima* is the nearest or shortest way; for we most readily believe what we discover by sight and touch." *Lambinus.* The common people, in many parts of England, have a saying, that 'Seeing is believing, and feeling is truth."

chance, all things violently shaken, in a brief space of time, with rising convulsions of the earth; which *time* may Fortune, *with* commanding *power*, avert far from us; and may reason, rather than reality, convince us that all things, overcome *by the influence of time*, may sink with a direfully-sounding crash into destruction.

On this subject, before I begin to utter oracles, (*expressed* with more sincerity, and with much more true reason, than *those of* the Pythian priestess, who speaks from the tripod and laurel of Apollo,) I will set forth to you many consolations in learned *and philosophic* arguments, lest, perchance, being restrained by religion, you should suppose that the earth, the sun, the heaven, the stars, *and* the moon, *being endowed* with a divine nature, must pursue their courses eternally; and *lest* you should conceive, in consequence, that it is just for all those, (after the manner of the giants,) to suffer punishment for their monstrous wickedness, who, by their reasoning, would shake the walls of the world, and seek to quench the radiant sun in the heavens; animadverting, in mortal speech, on bodies *which are called* immortal, but which, *in reality*, are so far distant from divine power, and are *so* unworthy to appear in the number of gods, that they may rather be thought adapted to give *us* a notion *of that* which is *altogether* removed from vital motion and sense.

For it is not possible that the nature and rationality of intellect should be thought capable of existing in all *kinds of* bodies whatsoever. As a tree cannot exist in the sky,[1] nor clouds in the salt sea; nor *can* fish live in the fields, nor blood be in wood, nor liquid in stones; *so* it is fixed and appointed where every thing may grow and subsist. Thus the nature of the mind cannot spring up alone without the body, or exist apart from the nerves and the blood. Whereas if this could *happen*, the faculty of the *human* soul might rather arise in the head, or shoulders, or in the bottom of the heels, and might rather *indeed* be accustomed to grow in any place, than to remain in the same man and the same receptacle *of the man*. But since it seems certain and fixed even in our own body, in what part the soul and the mind may subsist and grow up by themselves, it is so much the rather to be denied that they can

[1] As a tree cannot exist in the sky, &c.] Ver. 129. *Sicut in æthere non arbor*, &c. See this passage in book iii. 785, *seq.*

exist out of the entire body, and *without* an animal form, *whether* in the soft clods of earth, or in the fire of the sun, or in the water, or in the lofty regions of the air. *The heavenly bodies*, therefore, since they cannot be animated with life, are not endowed with a divine sense.

It is not possible, moreover, that you should believe there are sacred seats of the gods in any quarters of *our* world. For the nature *and substance* of the gods, being subtle and far removed from our senses, is scarcely apprehended by the power of *our* mind. *And* since it has *hitherto* escaped the touch and impact of *our* hands, it can *assuredly* touch nothing that is tangible by us; for nothing can touch *another body*, if it is not possible for itself to be touched. For which reason the abodes of the gods, also, must be dissimilar to our abodes, as being subtle, and correspondent to their own nature.[1] These points I shall hereafter prove to you with abundance of argument.

To say, moreover, that *the gods* designed to arrange *all* this noble fabric of the world for the sake of men, and therefore that we ought to extol *it as* an honourable achievement of the deities, and to believe that it will certainly be eternal and imperishable; and *to affirm* that it is unlawful ever to disturb from its seat, by any force *of argument*, that which was established for the human race by ancient contrivance and for perpetual duration, or to shake and displace, *though only* in words, the sum of things from their basis;[2] *and* to feign and add other *conceits* of this sort, *dear* Memmius, is to be guilty of *the utmost* folly; for what profit can our gratitude afford to those who are immortal and blessed *in themselves*, that they should labour to effect any thing for our sake? Or what new *incitement* could induce those, *who were* before tranquil, to desire, so long afterwards, to change their former *mode of* life?[3] For it would seem that he *only*, whom old

[1] Subtle, and correspondent to their own nature.] Ver. 155. *Tenues, de corpore eorum.* "The abodes of the gods must be subtle, as consisting of the same sort of atoms of which the gods themselves consist." *Faber.*

[2] Displace——the sum of things from their basis.] Ver. 164. *Ab imo evortere summa.* Lambinus has *summam.* If we read *summa*, in the acc. pl. with Forbiger, it must be considered as equivalent to *omnia*, *cuncta.* Lucretius elsewhere uses *summus* for *totus*, as in i. 49, *de summâ cœli ratione.*

[3] To change their former *mode of* life.] Ver. 170 *Vitam mutare priorem.* If the life of the gods was happy from the first, why did they

things offend, ought to delight in things *that are* new; but in him to whom no trouble has happened in past time, when he spent life happily, what could excite the desire of novelty?[1] Or, forsooth, the life *of the gods* was oppressed with gloom and sorrow, until the genial birth of *terrestrial* things shone forth? Or, *again*, what evil would it have been to us never to have been born? For whoever is born must *certainly* wish to remain in life, as long as *any* alluring pleasure shall engage him; but to him who never tasted the love of life, nor was ever in the number *of living beings*,[2] what affliction is it not to have been born?

Moreover, whence was a model *or idea* for making things, and whence was the notion of men *themselves*, implanted in the gods at first, that they should know, and conceive in their mind, what they should seek to do? Or by what means was the power of primary-particles known, and what they could effect by their change of order and place, if Nature herself did not give the *first* specimens of production?

For the primordial atoms of things were driven in so many ways by *so* many impulses, through an infinite duration of time, and were accustomed *so* to be borne and carried forward by their own weight, and to meet in all modes, and to try all *endeavours, as if to ascertain* what their combinations might generate, that it is not surprising if they fell at last into such positions, and acquired such motions, as those by which this universe of things, through *perpetual* renovation is now carried on.

But if I were even ignorant[3] what the primary-elements of things are, yet this I could venture to assert, from the scheme of the heaven itself, and to support it from many other reasons, that the system of things was by no means prepared for

produce a world, or worlds, for the sake of making a change in it? Was it merely that they might have a new subject on which to bestow their attention? But what motive, asks Lucretius, could they have for taking such trouble, when they had previously all that they wanted for enjoyment?

[1] But in him———what could excite the desire of novelty?] Ver. 174. *Quid potuit novitatis amorem accendere tali?* "Tali ὄντι, in such a being, whether god or man." *Faber.*

[2] Nor was ever in the number *of living beings.*] Ver. 181. *Nec fuit in numero.* "Rerum creatarum." *Faber.*

[3] But if I were even ignorant, &c.] Ver. 196. *Quod si jam rerum ignorem*, &c. This sentiment he had already advanced, ii. 177, *seq.*

us by divine power, so great *is the* faultiness *with which* it stands affected.

In the first place, of all that space which the rapid circumvolution of the heaven covers, mountains and woods, *the abodes* of wild beasts, have occupied a vast portion;[1] rocks, and great marshes, and the sea, which widely separates the coasts of countries, cover *another vast portion.* Moreover, burning heat, and the constant descent of frost, deprive mortals of almost two-thirds *of what is left.* And as to the land which yet remains, nature would still, by her own operation, cover it with thorns, if human strength did not prevent; which, for the sake of a living, is accustomed to groan under the stout mattock, and to cut the earth with ploughs urged *through it. For* unless we, turning up the fertile clods with the ploughshare, and forcing the soil, excite it to *send forth its* productions, they would be unable of themselves to rise into the liquid air. And yet at times, when all things, procured with *so* great labour, are green and flourish over the earth, either the sun in the heavens burns *them* up with violent heat, or sudden showers and cold frosts destroy them, or blasts of winds, with violent hurricanes, tear them to pieces.

Besides, why does nature cherish and increase, by land and by sea, a terrible brood of wild beasts *and monsters,* hostile to the human race? Why do the seasons of the year bring diseases? Why does untimely death wander abroad?

Moreover, an infant, as soon as nature, with *great* efforts, has sent it forth from the womb of its mother into the regions of light, lies, like a sailor cast out from the waves, in want of every kind of vital support; and fills the parts around with mournful wailings, as is natural for one by whom so much evil in life remains to be undergone. But the various *sorts of* cattle, herds, and wild beasts, grow up *with ease;* they have

[1] Vast portion.] Ver. 202. *Avidam partem.* "*Avidus* for *vast;* since what is greedy requires what is vast." *Gifanius.* The reader may take this for an explanation if he pleases. The soundness of the reading is doubtful. Lachmann gives, from conjecture, *aliquam partem.*

> "A part how small of the terraqueous globe
> Is tenanted by man! The rest a waste,
> Rocks, deserts, frozen seas, and burning sands,
> Wild haunts of monsters, poisons, stings, and death!
> Such is earth's melancholy map!"
>
> *Young's Night Thoughts,* i.

no need of rattles *or other toys;* nor is the fond and broken voice of the nurse[1] necessary to be used to one of them. Nor do they require different dresses according to the season of the year; nor, besides, have they any need of arms, or high walls, with which they may defend their property, since the earth herself, and Nature, the artificer of things, produce all *supplies* for all in abundance.

Above all, since the body of the earth, and the water, and the light breezes of the winds, and the warm heat, of which this Sum of Things seems to be constituted, consist wholly of generated and dissoluble substance, the whole frame of the world must be considered to be of a similar nature.[2] For of whatever *creatures*, in mortal shapes, we see the parts and members to be of a generated consistence, we observe, in general, these same *creatures* to be themselves both generated and mortal. For which reason, when I see the *four elements*, *the* vast members and divisions of the world, wasted and reproduced, I may conclude that there was also a time when the heaven and earth had a beginning, and that there will be *a time for* their destruction.

On these points, do not imagine, *my* Memmius, that I have assumed *any thing* too hastily, in supposing earth and fire to be perishable; in not doubting that water and air waste away; and in saying that the same *elements* are again produced and augmented. In the first place, some part of the earth, parched with the constant *heat of the* sun, *and* trampled with the *perpetual* action of feet, exhales mists and flying clouds of dust, which strong winds disperse through the whole air; part also of the clods is washed off by showers,[3] while rivers, as they strike against their banks, wear *them* away. Besides, whatever body increases another, is, on its

[1] Fond and broken voice of the nurse.] Ver. 231. *Blanda atque infracta loquela.* "*Broken*, because parents and nurses are accustomed to use half words, not whole ones, to children." *Lambinus.*

[2] The whole frame of the world must be considered to be of a similar nature.] Ver. 240. *Debet eâdem omnis mundi natura putari.* "Eâdem *viâ*," says Wakefield, that is, in the same way, or by the same rule. Lambinus reads *Debet tota eadem mundi natura putari*, which is easier to be understood. A little below, in "both generated and mortal," (*mortalia et nativa simul,*) I have transposed the epithets.

[3] Is washed off by showers.] Ver. 256. *Ad diluviem revocatur Imbribus.* "Is turned into water." *Creech.*

own part, diminished; and since the earth, which is the parent of all things, seems, without doubt, to be the common sepulchre of all things; the earth, therefore, you may be assured, is wasted, and *is* recruited *and* grows again.

Further, there is no need of words *to show* that the sea, rivers, and fountains abound with new liquid, and that waters flow incessantly *into the ocean;* for the vast deflux of streams from all sides declares it; but *we must observe*, above all things, *that* a certain portion of the water is carried off, and *that* it happens at last that there is no superabundance[1] of water; *for first* that part *is removed* which the strong winds, sweeping the ocean, and the ethereal sun, dispelling it with his rays, subtract *from its surface;* and next that part which is distributed through all the earth underneath. For the salt is strained off *in its passage through the ground*, and the substance of the water flows back, and all meets, *here and there*, at the sources of rivers; whence it flows, in a fresh stream, over the earth, wherever a passage, once cut, has borne along the waters in their liquid course.[2]

I shall now, therefore, observe concerning the air, that it is changed,[3] every hour, in innumerable ways. For whatever is perpetually passing off from bodies, is all carried into the vast ocean of air; *and* unless it were to restore particles back to *those* bodies, and to recruit them as their substance passes away, all things would by this time have been dissolved and converted into air. It accordingly does not cease to be *per-*

[1] *That* a certain portion of the water is carried off, and *that* it happens, at last, that there is no superabundance, *&c.*] Ver. 265.

Quicquid aquaï
Tollitur, in summâque fit ut nihil humor abundet.

Quicquid is for *quidque*, as Lambinus and Creech expound it. *In summâ*, says Wakefield, is "tandem, denique, post eventus omnes."

[2] Wherever a passage, once cut, has borne along the waters in their liquid course.] Ver. 273.

Qua via secta semel liquido pede detulit undas.

Lambinus notices the easy flow of this verse, and observes how well it is adapted to the subject. Lucretius repeats it, vi. 639. We may compare with it a line of Cowley, called by Johnson an "example of representative versification which perhaps no other English line can equal."

Which runs, and as it runs, for ever shall run on.

[3] That it is changed.] Ver. 274. *Quid—mutatur*—"*Qualiter*, how." *Wakefield.*

petually generated from bodies, and *perpetually* to return back to bodies; since it is agreed that all things are in *constant* flux.

The ethereal sun, too, the great fountain of liquid light, floods the heaven perpetually with new brightness, and instantly supplies with a new ray *the place of* the ray *that has passed off*. For whatever brightness *it* first *sends forth*, is, wherever it falls, lost to it. This you may collect from hence, that as soon as clouds have begun to come over the sun, and, as it were, to break through the rays of light, all the lower part of these *rays* is immediately lost, and the earth, wherever the clouds pass, is overshadowed; *so* that you may understand that things constantly require a fresh *supply of* light, and that every first emission of radiance is dispersed; nor could objects otherwise be seen in the sunshine, unless the fountain of light itself furnished a perpetual supply.

Even your nocturnal torches, which are things of earth, your hanging lamps, and tapers, brilliant with waving flames, *and showing themselves* fat with abundance of smoke, are impelled,[1] in a similar manner, by the agency of heat, to emit new radiance; they incessantly discharge their tremulous rays;[2] they never cease; nor does the light, as if broken off, leave the place *dark*. So swiftly is the destruction of that flame hastened from all its rays, through the rapid origination *and emission of new particles*. Thus, too, we must suppose that the sun, and moon, and stars throw off *their* light through successive generations *of beams*,[3] and perpetually lose whatever rays *are* first *to pass from them; so* that you must not by any means suppose that these *bodies* maintain imperishable vigour.

Do you not see, moreover, that even stones are overcome by time? *Do you* not *observe* that lofty towers fall, and that rocks decay? *Do you* not *notice* that the temples and images of the gods, overcome *with age*, open in fissures; and that the sacred deities themselves cannot extend the limits of fate, or struggle against the laws of nature?

[1] Are impelled.] Ver. 298. *Properant.*

[2] They incessantly discharge their tremulous rays.] Ver. 299. *Tremere ignibus instant.* "Tremulos radios spargunt." *Creech.*

[3] Through successive generations *of beams.*] Ver. 304. *Ex alio atque alio subortu.* The sense is evident.

Besides, do we not see that the monuments of heroes fall? You might even believe that they desire for themselves a time to grow old.[1] Do we not observe that flints crumble from the lofty mountains, and cannot endure and withstand the powerful force of *even* a finite age? For *if they were bodies* which, through infinite ages, had sustained all the assaults of time, *and continued* exempt from dissolution, they would not *now* suddenly *be* broken away *and* fall *to pieces.*

Further, contemplate this *heaven* around and above *us*, which contains all the earth in its embrace; it produces, as some say, all things from itself, and receives *all things, when* dissolved, into itself. *But it was a* generated *body, and* consists wholly of perishable substance. For whatever increases and nourishes other things from itself, must *by that means* be diminished, and *must* be recruited by receiving[2] *into itself fresh* substances.

In addition, if there was no origin of the heavens and earth from generation, and if they existed from all eternity, how is it that other poets, before the time of the Theban war, and the destruction of Troy, have not also sung of other exploits *of the inhabitants of earth?* How have the actions of so many men thus from time to time fallen *into oblivion? How is it that* they no where survive *in remembrance, and are no where* stamped on everlasting monuments of fame?

But, as I am of opinion, the whole of the world is of *comparatively* modern date, and recent in its origin; and had its

[1] You might even believe that they desire for themselves a time to grow old.] Ver. 314. *Quærere proporro sibi quomque senescere credas. Senescere,* "to grow old," *quomque,* "at some time or other." *Cunque,* as in Horace, (Od. i. 32, 15,) *Mihi cunque salve Rite precanti.* Wakefield interprets it *quocunque modo:* "Credas—dato quasi studio ad senectutem properanter contendere, quocunque tandem modo." But it seems better to understand it of *time* than of *manner*; for the mode in which buildings decay has been expressed four lines above. *Proporro* I join with *credas,* in the sense of *porro, præterea, etiam.* Lambinus read, from conjecture, *Cedere proporro, subitoque senescere casu.* Lachmann, also from conjecture, gives *Quæ fore proporro vetitumque senescere credas,* and alters the passage in Horace to *medicumque salve Rite vocanti.* The verse of Horace is probably faulty, (for, as Bentley observes, there is no example to support it,) but whether Lachmann has found the right method of amending it, may be doubted.

[2] By receiving, &c.] Ver. 324. *Quum recipit res.* Creech interprets "cùm *istas* res *dissolutas* recipit."

beginning but a short time ago. From which cause, also, some arts are but now being refined, *and* are even at present on the increase; many *improvements* are in this age added to ships; musicians have but recently produced melodious sounds. This nature and system of the world, too, *of which I write*, has been but lately discovered; and I myself, among the first *discoverers*, have been found the first *poet*[1] that could express it in the language of my country.

But if, perchance, you suppose that all *these arts*[2] formerly existed the same *as at present*, but that generations of men have perished by burning fire, or that cities have fallen by some great catastrophe of the world, or that violent rivers, through continual rains, have inundated the earth, and overwhelmed cities, you must so much the more, being convinced *by these facts*,[3] admit that there will *probably* be also a destruction of the earth and the heaven. For, since things were affected *and shaken* by so great disorders, and so great dangers, if a more serious cause had then pressed *upon them*, they might universally have suffered destruction and mighty ruin. Nor do we, *who now live*, appear to be mortal one like another, by any other inference than that we sicken with diseases similarly[4] to those whom nature has removed from life.

Further, whatsoever *bodies* remain eternal,[5] must *either*, as being of a solid consistence, repel assaults, and suffer nothing to penetrate them that can disunite their compact parts within; (*such* as are the primary-particles of matter, the nature of which we have already shown;) or they must be able

[1] Among the first *discoverers*, have been found the first *poet*, *&c.*] Ver. 337. *Primus cum primis ipse repertus.* Wakefield gives this comment: "His primis rerum repertoribus ego quoque sum repertor annumerandus." With *primus* I understand *poeta*.

[2] All *these arts.*] Ver. 339. I have adopted *arts* from Creech.

[3] So much the more, being convinced *by these facts*, *&c.*] Ver. 344. *Tanto quique magis victus fateare necesse est. Quique* is Wakefield's reading, and stands, he says, "according to the practice of good writers," for *quisquis* or *quicunque*. As it could only be rendered in English by *whoever you are*, or some such awkward phrase, I have left it out. Other editions, except Lachmann, have *quippe*.

[4] Sicken with diseases similarly, *&c.*] Ver. 350. *Morbis ægrescimus Idem Atque olli*, *&c.*, i. e. *we the same sicken with diseases*, *&c.* Lambinus reads *morbis—isdem*.

[5] Further, whatsoever *bodies* remain eternal, *&c.*] Ver. 351. Twenty-three verses are here repeated from iii. 807, *seq.*

to endure throughout all time, because they are exempt from assaults, *or unsusceptible of them;* (as is a vacuum, which remains intangible, and suffers nothing from impact;) or *they must be indestructible for this reason*, that there is no sufficiency of space round about, into which substances may, as it were, separate and be dissolved (as the entire universe is eternal, *inasmuch as* there is neither any space without it, into which *its parts* may disperse; nor are there any bodies which may fall upon it, and break it to pieces by violent concussion). But, as I have demonstrated, neither is the nature of *this* world of a solid consistence, since in *all compound* bodies vacuity is mixed; nor is it like vacuity *itself;* nor, again, are bodies wanting, which, rising fortuitously from the infinite *of space*, may overthrow the sum of things with a violent tempest, or bring upon it some other kind, whatever *it may be*, of disaster and danger; nor, moreover, is vastness and profundity of space wanting, into which the walls of the world may be scattered, or, assaulted by some other kind of force, may be dissolved. The gate of death, therefore, is not closed to the heaven, or to the sun, or to the earth, or to the deep waters of the sea, but stands open, and looks back *for them*, with a mighty and huge abyss.

For which reason, *since these existing things are dissoluble*, you must necessarily allow that they are generated *of indissoluble elements;* for *bodies* which are of mortal consistence, could not have been able, from all eternity, to contemn till now the strong assaults of infinite time.

Furthermore, since the great divisions of the world[1] are perpetually contending, and are stirred up in implacable warfare against each other, do you not see that some end to their long contest may be assigned? *And this end may take place*, either when the sun, and heat in general, having drunk up all

[1] The great divisions of the world.] Ver. 381. *Maxima mundi membra.* Fire and water. "Many philosophers imagine that the elements themselves may be in time exhausted; that the sun, by shining long, will effuse all its light; and that by the continual waste of aqueous particles, the whole earth will at last become a sandy desert. I would not advise my readers to disturb themselves by contriving how they shall live without light and water. For the days of universal thirst and perpetual darkness are at a great distance. The ocean and the sun will last our time, and we may leave posterity to shift for themselves." *Johnson, Idler,* No. 3.

the moisture, shall have become supreme; *a consummation, indeed*, which they endeavour to effect, but cannot yet accomplish their designs; so much do rivers supply, and *so constantly* do *the waters* threaten, *even* of their own power, to deluge all things from the deep gulf of the ocean; (*but their threats are* vain; for winds, sweeping the floods, and the ethereal sun, dispelling *them* with *his* rays, diminish *their bulk*, and *seem to* trust that they can dry up all things before the waters can attain the completion of their design;) maintaining so great a war, they persist to strive with one another for *their* great objects, and *to contend, as it seems*, with equal efforts; though, as is reported, fire was once superior on the earth, and water once reigned *triumphant* over the plains.

For fire prevailed, and burnt and consumed many parts, when the erring *and* impetuous fury of the sun's horses hurried Phaethon through the whole heaven and over the entire earth. But the omnipotent Father, incensed with fierce rage, hurled Phaethon from his chariot to the earth by the sudden stroke of a thunderbolt; and the Sun, meeting him as he fell, caught up the eternal lamp of the world, brought back his scattered horses, and yoked them trembling *to the car;* and, guiding *them* in their own path, restored *and re-organized* all things. *This*, you must be aware, is the story which the poets of the Greeks sung, *but* which is too far removed from truth and reason. For fire may have the superiority, when more atoms *than usual* of *igneous* matter have collected from the infinite *of space; but* afterwards its strength, being by some means repressed, *necessarily* subsides; else *all* things, burned up by a scorching atmosphere, *would utterly* perish.

Once, too, as tradition tells, water having-risen-in-a-body,[1] began to have the mastery; at which period it overwhelmed numbers of mankind with its waves; *but* subsequently, when its strength, (which had risen from the infinite *profound*,) *was* in some way turned aside *and* repelled, the rains came to a stand, and the rivers diminished their violence.

But I shall *now proceed to* relate, in *due* course, how the combination of matter[2] established the heaven and the earth, the depths of the sea, and the revolutions of the sun and moon

[1] Once, too,—water having risen-in-a-body, *&c.*] Ver. 412. *Humor item quondam cœpit superare coortus.* Alluding to the flood of Deucalion.

[2] But——how the combination of matter, *&c.*] Ver. 417. *Sed*

For assuredly neither the primary elements of things disposed themselves severally in their own order by *wisdom or* counsel *arising* from a sagacious understanding; nor, certainly, did they agree among themselves what motions each should produce; but because the primordial atoms of the world, being many, *were* agitated by concussions, in many ways, through an infinite space of time, *and* were accustomed to be carried forward by their own weights, and to combine in all modes, and to try all *efforts, as if to ascertain* whichsoever of them, meeting together, might give birth *to some offspring*, it from this cause happens that, being spread abroad during a vast period of duration, and attempting all kinds of combinations and movements, those at length came together, which, having suddenly coalesced, *became at first, and* become *now*, from time to time, the commencements of great productions,[1] *the origin* of the earth, the sea, and the heaven, and of *every* kind of living creatures.

Here, at that time, could be seen neither the chariot of the sun, flying on high with *its* abundant light, nor the stars of the great firmament, nor the sea, nor the heaven, nor the earth, nor the air; nor *could* any thing be discerned similar to our *present* objects, but *only* a certain crude agitation *of matter*, and a congeries swelling up together. Afterwards the parts began to separate; and similar things *began* to be united with similar, and to evolve the world, and display its parts, and arrange its different members, *which were generated* from all kinds of primordial atoms; whose intervals, courses, connexions, weights, impulses, combinations, *and* motions, Discord, exciting war *amongst them*, (from the disagreement of their forms and the variety of their shapes,) *had* disturbed; on which account they could not remain all so united, or produce *such* suitable motions among themselves, *as should lead to the objects which they were to effect;* that is, to divide the

quibus ille modis conjectus materiaï, &c. "He now proceeds to explain how the world was formed from atoms, which move without design, and without any certain law. This account of the formation of the world, and its various parts, corresponds almost exactly with that which is stated by Plutarch [respecting the doctrines of Epicurus] in his first book *de Placitis Philosophorum*." *Lambinus.*

[1] Become *now*, from time to time, the commencements of great productions.] Ver. 431. *Magnarum rerum fiunt exordia sæpe.* I have rendered *sæpe* "from time to time." Faber read *nempe.*

high heaven from the earth, and *to cause* that the sea and *other* water should spread abroad separately, and that the stars of heaven *should shine* by themselves pure and distinct.

For, in the first place, the several atoms of earth, because they were heavy, and involved *one with another*, met all together in the middle, and took, *as it were*, the lowest place;[1] which *atoms*, the more closely they cohered, the more *effectually* they excluded *from themselves* those particles which were to form the sea, the stars, the sun and the moon, and the walls of *this* great world. For all these *latter parts of nature* consist of more smooth and round particles, and of atoms much more diminutive, than the earth; *and*, accordingly, the fiery ether, bursting forth from the *several* parts, through the small pores of the earth, first raised itself *on high*, and, being light, carried with it much fire; by a process similar to what we often witness, when, in the morning, the golden rays of the beaming sun first blush over the grass gemmed with dew, and *when* the *stagnant* lakes, and ever-flowing rivers, exhale a mist, and earth itself sometimes appears to smoke; all which *vapours*, when they are united in the height above *us*, cover the heaven in an *apparently* condensed body. So, too, at that time, the light and expanded ether, diffused around in a united mass, collected *itself*; and thus, being widely extended in every direction, enclosed all other things in its vast embrace.[2]

To this *formation of the ether* succeeded the rise of the sun and moon, and *of those bodies* whose orbs revolve in the air between both; *bodies* which neither the earth nor the vast ether attracted to itself, because they were neither so heavy as to sink down to the earth, nor *so* light as to glide in the highest regions; and yet they so exist between both, that they revolve *as* active bodies,[3] and are a part of the entire world.

[1] Met all together in the middle, and took, *as it were*, the lowest place.] Ver. 452. *Coibant In medio atque imas capiebant omnia sedes.* "Met and sunk down in the middle, which is the lowest place." *Lambinus.* But how it happened that the atoms found a spot in which they might settle as a centre or lowest place, when he had previously asserted (i. 1070, *seq.*) that all bodies must alike be carried forwards through all parts of space, Lucretius does not explain. Ovid, in his account of the formation of the world, omits all allusion to a centre from which that formation commenced.

[2] Vast embrace.] Ver. 471. *Avido complexu.* Comp. ver. 202.

[3] Active bodies.] Ver. 477. *Corpora viva.* In giving this sense to *viva*, I follow Lambinus.

As, in our own bodies, some members may remain at rest, whilst others are still in motion.

These substances, therefore, being withdrawn, the earth, where the vast blue region of the sea now spreads, suddenly sunk down, and hollowed out depths by means of the salt flood; and in proportion as, day after day, the surrounding tide of air, and the *warm* rays of the sun, urged the earth (lying exposed even to its extreme bounds) with frequent impulses, so that, being *thus* acted upon, it might collect in condensation towards its own centre, so much the more the salt fluid, pressed out from its body, increased with its flood the sea and the liquid plains; and so much more the numerous particles of heat and air, escaping forth *from other substances*, flew *upwards*, and formed, afar from the earth, the lofty and shining temples of the sky. The plains sunk down, and the slopes of the high mountains increased; for *such inequality was inevitable; as* the rocks could neither subside, nor could all parts of the ground settle to the same level. Thus, then, the heavy-mass of the earth, with condensed bulk, stood firm; and all the heavy grossness of the world, as it were, collected to the bottom, and sunk down like dregs into the deep.

Then the sea, the air, and the fiery ether itself, *which were* of liquid consistence, were all left pure; and *of these bodies* some *were* lighter than others, and the ether, being of the greatest subtlety and levity, floats above the breezes of the air, nor allows its clear substance to mingle with the *matters* that disturb the aerial regions; it leaves all these *lower parts* to be swept with violent whirlwinds; it leaves *them* to be disturbed with tumultuous storms; *whilst* itself, gliding with settled impulse, bears along its own fires. For that the ether may revolve *thus* steadily, and with uniform tenor, the flood in the Euxine shows,[1] which moves with a settled flux, preserving one unvaried direction in its course.

[1] The flood in the Euxine shows.] Ver. 508. *Significat Ponto mare. Mare Ponto,* for *mare Ponti,* says Wakefield; for *in Ponto,* says Forbiger. "That the ether may glide perpetually onwards, he seeks to prove from the constant flow of the Pontus Euxinus into the Thracian Bosphorus, the Propontis, and the Hellespont, without any reflux." *Faber.* Wakefield aptly cites Seneca, Nat. Quæst. iv. 2. "The Pontus flows rapidly and constantly into the sea below: not, like other seas, with tides alternating in opposite directions, but with a current always running strongly in the same course."

Let us now state what is the cause of the motion of the stars. In the first place, if the great orb of heaven whirls round, we must admit that air presses *and urges* the sky on either side, and confines it externally, and encloses it in each direction; then that another *body of air* flows over *our heads*, and tends in the same *direction* in which the bright stars of the eternal world roll;[1] and *that there is still* other air beneath *our feet*,[2] which carries along the heaven in the opposite direction, as we see running streams turn wheels and buckets.

It is likewise possible that the whole heaven may remain stationary, though the bright constellations are nevertheless borne along; whether because active tides of ether are confined *within the sky*, and, seeking an outlet, whirl themselves round, and roll *with them* the stars through the vast regions of heaven; or whether air, flowing from some quarter without, wheels and impels the stars; or whether they of themselves can move forward, whither the sustenance of each attracts[3] and invites them, while pursuing their course, *and* recruiting their igneous substances every where throughout the heavens. For which of these *causes* prevails in this world, it is difficult to lay down as certain; but I demonstrate *only* what is possible, and may be effected, throughout the universe, in various worlds, formed in various ways,[4] and seek to assign several causes for the motions of the stars; which *causes* may operate, *in different parts*, through the whole *of things;* but of which one must necessarily be this very cause, that produces motion in *our* stars; though to decide which of them it is, is

[1] In which the bright stars of the eternal world roll.] Ver. 515. *Quò volvunda micant æterni sidera mundi.* He uses the word *eternal* as a poet, not as a philosopher.

[2] Beneath *our feet.*] Ver. 516. *Subter.* "Sub terrâ, et sub pedibus nostris." *Lambinus.* See below, ver. 636, *seq.*

[3] Whither the sustenance of each attracts, *&c.*] Ver. 525. *Quò cujusque cibus vocat atque invitat.* "Some other philosophers, besides Epicurus, thought that the sun, and the other celestial bodies, were fed by the vapours arising from the sea and the earth. See Cic. de Nat. Deor. lib. ii. Virg. Æn. i. 612, *Polus dum sidera pascet.*" *Lambinus*, ad i. 232. "This was a notion, not only of Epicurus, but of the Stoics. See Plutarch de Placit. Philosoph. And you will find indications of this opinion even before the age of Zeno." *Faber*, ibid.

[4] In various worlds, formed in various ways.] Ver. 529. *In variis mundis, variâ ratione creatis.* That there are more worlds than ours, he shows to be probable, ii. 1052, *seq.*

by no means the part of a man proceeding, *like myself, cautiously, and* step by step.

And that the earth may rest in the middle[1] part of the world, it is necessary that its weight should gradually, *as it were*, become evanescent and imperceptible,[2] and that it should have another substance beneath it, united with it from its earliest age, and closely connected with the aerial parts of the world, in which it was produced and continues to live. *The earth* is, therefore, no burden to the air, nor *at all* depresses it; just as his limbs are no burden to a man; and *just as* the head is no burden to the neck; nor do we feel the whole weight of the body press upon the feet. But whatever weights fall upon us, and are laid upon us, externally, hurt *or annoy us, although they are* often far less *than those which are within us;* of so great importance it is *to understand* what one thing can *effect by union with another.* The earth, accordingly, was not brought *into this world* suddenly, as *a* foreign *body*, and cast, from some other quarter, upon air *that was* strange *to it*, but was produced together with the *rest of the* world, and as a regular part of it, at its first origin; just as our members are seen *to be formed* with us.

Besides, the earth, when shaken with violent thunder, immediately shakes all things which are above it with its motion; *an effect* which it could by no means produce, unless it were combined with the aerial parts of the world, and with the

[1] And that the earth may rest in the middle, &c.] Ver. 535. *Terraque ut in mediâ mundi regione quiescat*, &c. "It may reasonably be asked how the earth, when Lucretius so often speaks of its weight, can remain in the middle of the air; and why it does not leave its position, and sink into the infinite void. To this the poet answers, that though the air alone surrounds the earth, yet that, as the earth and air are closely connected, and have been from their origin parts of the same whole, the earth is in consequence no burden to the air, but rests upon it as if all its gravity were laid aside. But the case would be otherwise if the earth had been brought into this world from another; for then its weight would be felt by the air as that of a foreign body; as we, in regard to our own bodies, feel even a small substance that lies upon them externally, though neither the head, nor the other members of the body, are a burden to one another; inasmuch as they are congeneous, and bound by a common law of connexion. Epicurus, in his Epistle to Herodotus, says, *τὴν γῆν τῷ Ἀερι ἐποχεῖσθαι ὡς συγγενῆ.*" *Creech.*

[2] Become evanescent and imperceptible.] Ver. 536. *Evanescere—et decrescere.*

heaven; for they cohere by common connexions one with the other, conjoined, and coalescing in union, from the earliest period.

Do you not observe, also, how exquisitely subtle a substance of the soul sustains the body, which is of great weight, *simply* because it is so closely united and combined with it? What power, too, but that of the soul, which governs the limbs, can raise the body with a vigorous leap *from the ground?*

Do you now understand how much force a subtle substance may have, when it is united with a heavy body, as the air *is* joined with the earth, and the power of the soul with ourselves?

Nor can the circumference of the sun be much greater, or its fire less,[1] than it appears to our senses. For from whatever distances fires can throw their rays, and cast a warm heat upon our bodies, the ejection *of the heat* from those distances detracts nothing from the bulk of the igneous matter, *and* the fire is not at all more contracted to the view. Since, therefore, the heat of the sun, and its effused light, reach to our senses, and the parts *about us* shine *with its rays*, the form and outline of the sun must, on this account, appear *as it* really *is*, so that you can add nothing more *to it*, or *make it* less.

And the moon, whether, *as* she glides *through the sky*, she illuminates its regions with a borrowed light, or whether she sends forth radiance from her own body; whichsoever is the case, she *is*, *as she* pursues her course, of no larger a dimension [2] than she appears to our eyes as we observe her. For all objects which, being far remote from us, we view through a large body of air, look confused in their appearance, before their outline *seems at all* diminished. For which reason the moon, since it presents a clear shape and defined outline, (as *it does*

[1] Nor can the circumference of the sun be much greater, or its fire less, *&c.*] Ver. 567. *Nec nimio solis major rota, nec minor ardor esse potest.* All that is meant is, that the sun cannot be much greater or much less than it appears to us. "An irrational and absurd opinion of Epicurus," says Lambinus.

[2] She *is* —of no larger a dimension, *&c.*] Ver. 578. *Nihilo fertur majore figurâ, Quàm nostris oculis, quâ cernimus, esse videtur.* The order and construction, says Wakefield, is this; "Fertur figurâ nihilo majore, quàm *ea figura*, quâ *eam* cernimus *figurâ*, videtur esse nostris oculis."

whenever its outmost edges[1] are observed,) must hence appear to us in the sky just as large as it is.[2]

Further, whatsoever stars in the heavens you view from hence, can, assuredly, be *only* very little less, or *only* very little larger,[3] *than they appear;* since *of* whatsoever fires we see on the earth, *even* whilst the motion *of their light* is plain, and their glow is clearly perceived, the outline seems at times to vary in one way or other, *contracting or expanding*, according as it is more *or less* distant.

It is not, moreover, a matter of wonder, how so small a body as the sun can emit so large a quantity of light, as to cover with its flood the seas, the whole earth, and the heavens, and to pervade all things with its quickening heat. Since it is possible that one fountain of *the light of* the whole world, opened from hence, may flow forth abundantly, and scatter its radiance abroad;[4] because the atoms of heat, *we may suppose*, so meet together here from all parts of the world, and their assemblage forms *such* a flood, that *all* this heat may flow from one source. *For* do you not observe, too, how small a spring of water sometimes irrigates the meadows far and wide, and flows exuberantly over the fields?

It is also possible that heat may pervade the air with a strong glow from no very great fire in the sun, if, perchance, the air be so tempered and disposed as to be excited to warmth, *though* affected with *but* gentle fervour; as we sometimes see fire, from one spark, spread in all directions among corn-fields and straw.

And, perhaps, the sun, shining on high with its rosy light, contains about it much heat in secret stores-of-fire, which, *though* it be distinguished by no brightness, yet, retaining a

[1] As *it does* whenever its outmost edges, *&c.*] Ver. 583. *Ut est oris extremis quomque notata*—i. e. whenever it is noted as to its outmost edges.

[2] Just as large as it is.] Ver. 584. *Quantaque quanta est, hinc nobis videatur, in alto.* There are various readings of this passage. The present, which is Eichstadt's, cannot, though adopted by Forbiger, and even Lachmann, be right; for what is the use of the *que?* Lambinus reads, *Quanta quoque hæc fuvat, tanta hinc videatur in alto. Fūvat* for *sit* or *fuerit;* which Preigerus approves.

[3] *Only* very little larger.] Ver. 591. *Exiguâ majores parte brevique.*

[4] Scatter its radiance abroad.] Ver. 597. *Erumpere lumen.* "Erumpere," with an active signification.

glow, increases the force of the rays to such a degree *as we experience.*

Nor does the law of the sun's motion appear plain and evident, *nor is it demonstrable* how he passes from *his* summer regions to the wintry part of his course in Capricorn, and how, coming back from thence, he turns to the solstitial points; nor *do we understand how* the moon seems to traverse that space in each month, in passing through which the sun occupies the period of a year; a plain reason, I say, has not been assigned for these phænomena.

For, in the first place, that appears possible which the venerable opinion of the philosopher Democritus asserts; that the nearer each of the heavenly bodies is to the earth, the less *swiftly* can they be carried *round* by the revolution of the heaven; since the rapid and strong force of the *upper* sky decreases and loses its power beneath; and that, accordingly, the sun, with the *lower* constellations following *it*,[1] is gradually left behind, because it is much beneath the fiery signs;[2] also that the moon, from this *same cause, falls back so much* the more, *for* the more distant its course, being lower, is from the heaven, and approaches to the earth, the less can it exert its swiftness with the signs. Since the more gentle is the speed *with which the moon*, being lower than the sun, is borne along, the more *easily* all the signs around overtake it, and are carried past *it.* Hence it happens, that *the moon* seems to return more quickly to each sign, because the signs return towards it.

It is possible, also, that two *currents of* air, at a certain season, may blow in turns[3] from opposite quarters of the world; *of which currents one may be that* which drives the sun

[1] With the *lower* constellations following *it.*] Ver. 626. *Cum posterioribus signis.* "Cum signis sequentibus." *Creech.*

[2] Fiery signs.] Ver. 627. *Fervida signa:* which Creech interprets "summa signa."

——— whence the sun
And solar satellites must more and more
Be backwards left, deserted, since full deep
Lie they beneath the blue ethereal fires. *Good.*

[3] Two *currents of* air, — may blow in turns, &c.] Ver. 636. *Aer Alternis certo fluere alter tempore possit. Aer alter* for *duo* or *bini aëres.* "Duos aëres lunæ solique inservientes introducit." *Creech*, ad ver. 613.

from the summer signs into the winter *part of his* course, and *into* freezing cold; and *the other may be that* which sends him back from the freezing shades of cold into the warm regions and glowing constellations. And, in like manner, we may suppose that the moon, and the stars, which revolve for long years in vast orbits, may move by means of *two* currents of air in opposite directions. Do you not notice, also, that clouds, by means of opposite winds, go in different ways, the lower *contrary* to the upper? *And* why, *therefore*, may not these heavenly bodies be borne through the vast circuits of the sky by currents opposed to each other?

But *the reason why* night[1] covers the earth with *its* great darkness, *is* either *because the light grows weak* when the sun, after his long course, has reached the extremity of the heaven, and has sent forth his fires languidly, *as* being exhausted with the journey,[2] and wasted by *passing through* a long tract of air; or because the same force, which carried the *solar* orb above the earth, compels it to turn its course beneath the earth.

Matuta, also, *the goddess of the morning*, leads forth the rosy Aurora, and spreads abroad the light, at a certain hour, either because the same sun, *which was* under the earth, returning again, aspires to the heaven, proceeding to enlighten it with his rays; or because, at *that* particular time, bodies of fire congregate, and many atoms of heat are accustomed to meet in confluence, which cause a new light of the sun to be perpetually produced. Thus it is said, that from the lofty hills of Ida[3] the rays *of the sun*, when his light rises *in the east*, are seen dispersed, and that they afterwards collect, as it were, into one body, and form a *complete* orb.

Nor ought it, in such phænomena, to be a subject of wonder, that these atoms of fire can thus flow together, and renew the splendour of the sun, at a certain time. For we observe many *other* things which take place at a certain time

[1] But *the reason why* night, *&c.*] Ver. 649. He now begins to explain the causes of day and night.

[2] Exhausted with the journey.] Ver. 652. *Concussos itere.*

[3] Thus—from the lofty hills of Ida, *&c.*] Ver. 662. *Quod genus Idæis fama est è montibus, &c.* This phænomenon is mentioned by Diod. Sic. xvii. 7, and by Pomponius Mela, *de Situ Orbis*, v. 6. It was probably some atmospheric illusion. *Quod genus* is for *quemadmodum*, as in several other places.

in all departments *of nature;* the groves flourish at a certain time, and at a certain time drop their verdure. At a certain time, also, age directs the teeth to be shed; and *causes* the immature *youth* to bloom with soft down, and to let the flexible beard, too, descend from his cheeks. Lightnings, moreover, snow, rain, cloudy weather, *and* winds, take place at seasons of the year by no means uncertain. For since the first commencement of causes thus arose, and the affairs of the world thus proceeded, *as at present,* from their earliest origin, every event is a consequence in the unvarying course of things.

That the days also increase while the nights grow shorter, and that the days are diminished *in length* when the nights become augmented, may possibly happen, either because the same sun, revolving below and above the earth, divides the regions of the air with unequal curves, and distinguishes the orb *of heaven* into dissimilar parts, while, whatever it has taken from one part of it, it adds, as it revolves, just so much to the opposite part, until it has come to that sign in the heavens where the node of the year[1] makes the darkness of night equal to the light of day: (for the heaven has *two* separate points, at equal distances, where the courses of the north wind and the south meet;[2] owing to the position of the whole circle of the zodiac, in which the revolving sun consumes the period of the year, illumining the earth and the sky with oblique light,—as the system of those declares who have observed that whole region of the heaven *which is* distinguished by the array of the *twelve* signs:) or, because the air is denser in certain parts, the tremulous rays of light are therefore retarded, and cannot easily penetrate it and emerge to the dawn; for which reason the nights in the winter delay long, until the bright herald of day[3] returns: or, again, because, at alternate seasons of the year, the atoms of flame, which cause the sun to rise[4] in

[1] Node of the year.] Ver. 687. *Nodus anni.* "He means the equinoxes." *Faber.*

[2] Where the courses—meet.] Ver. 688. *Medio cursu flatûs Aquilonis et Austri.*

[3] Herald of day.] Ver. 699. *Insigne diei.* "The sun." *Faber.*

[4] Cause the sun to rise, *&c.*] Ver. 702. *Faciunt solem certâ desurgere parte.* Or, as Lambinus and others have it, *certâ de surgere.* I wonder that none of the critics have suspected Lucretius to have written *fulgere* rather than *surgere.*

a particular part *of the heavens at a particular time*, are accustomed to congregate slower or faster.

As for the moon, *she* may shine because she is struck with the rays of the sun, and may turn towards us every day a larger portion of light in her aspect, as she recedes *farther* from the sun's orb, until, being opposite to him, she has shone forth with fullest splendour, and, rising on high *in the east*, has beheld his setting *in the west;* thence, also, *retiring* backwards, she may, as it were, hide her light gradually, as she approaches from the opposite side, along the circle of the zodiac, nearer to the sun's radiance; as *those philosophers* suppose, who make the moon to be *in shape* like a ball, and to pursue her path of revolution beneath the sun; [*and* hence it happens that they seem to say what is true.][1]

There is also *a hypothesis* by which *the moon* may revolve and present various phases of brightness, with her own light. For it is possible that there may be another body, which moves and advances[2] together *with her*, and which in every way obstructs and hinders *her light*, but nevertheless cannot be seen, as it passes along in total darkness.

And *the moon* may possibly revolve *upon her axis*, like a ball[3] tinged with shining light *only* on one side, and *may*, by turning her orb, present *to us* her various phases. *Thus*, progressively, she turns that part which is illuminated, so as to behold us with *full* aspect and open eye;[4] then, by degrees, she turns away and removes *from us* the brilliant side of her orb;[5] as, *indeed*, the Babylonish doctrine of the Chaldæans *taught*, which, refuting the method of the *Greek* astrologers,

[1] *And* hence it happens that they seem to say what is true.] Ver. 713. *Proterea fit uti videantur dicere verum.* This verse, which is regarded by Forbiger as suspicious, and enclosed in brackets, might very well be spared.

[2] Another body, which moves and advances, *&c.*] Ver. 716. This, says Lambinus, was the opinion of Anaximander; but Creech observes that there is no proof of his having held such an opinion.

[3] And *the moon* may—revolve—like a ball.] Ver. 719. This was the doctrine of Berosus, as is observed by Vitruvius, ix. 4.

[4] So as to behold us with *full* aspect and open eye.] Ver. 723. *Ad speciem—nobis oculosque patentes.* This is translated according to Wakefield's interpretation, who says that previous commentators had thought that the face and eyes *of the spectator* were meant.

[5] Of her orb.] Ver. 725. *Glomeraminis atque pilai.* As both words have the same meaning, I have thought it sufficient to translate one.

labours to support *this hypothesis* in opposition *to it;* just as if that, for which each contends, might not be *true*, or as if there were *any reason* why you should choose to embrace one opinion less than the other.

Further, when you see so many things produced in a certain order, it is difficult to demonstrate by reason, and to evince by argument, why a new moon may not be generated every day, with a certain succession of phases and figures, and each *moon*, as it *diurnally* arises, diurnally decay, and another be reproduced in its place and station.

For the Spring and Venus begin their course, and the winged zephyr, the harbinger of spring, walks before, near whose footsteps maternal Flora, preparing *the way*, covers the whole path with richest flowers and perfumes; next follows scorching Summer, and dusty Ceres closely attendant on her, and the Etesian breezes of the northern winds;[1] then succeeds Autumn, together *with whom* advances Bacchus; then follow other weather and *other* winds, the loud-resounding south-east and the south fraught with thunder; at length cold brings on snows, and spreads abroad benumbing chillness, and Winter comes after, and frost chattering with his teeth. Since, therefore, so many things may occur at a certain time, it is the less surprising if the moon is at a certain time produced, and at a certain time decays.

As for the eclipses of the sun, and occultations of the moon,[2] you must suppose *that they* may arise from various causes. For, (*as* you *perhaps* ask,) why should the moon *only be thought* able to shut out the world from light, and to oppose *her* high head to it on the side of the earth,[3] (obtending her dark orb to

[1] Etesian breezes of the northern winds.] Ver. 741. *Etesia flabra Aquilonum. Etesian winds* mean *yearly winds;* but the term was often applied by the Greeks to the north winds, which were said to blow annually at the rising of the dog-star. See the commentators on Demosthenes, Phil. i. 11.

[2] Occultations of the moon.] Ver. 750. *Lunæque latebras. Latebræ* signifies obscurations or eclipses, as Creech rightly interprets. "He now begins to speak of the eclipses of the sun and moon: and first of those of the sun." *Lambinus.*

[3] And to oppose *her* high head to it on the side of the earth.] Ver. 753. *Et à terris altum caput obstruere ei.* "Objicere corpus suum supra terras elatum," says Creech; but *à terris* surely means *on the side of the earth.* With *ei* Lambinus and Creech understand *soli;* I prefer *lumini.*

the sun's glowing rays,) and not some other body, [1] which may always revolve devoid of light, be considered able to produce such an effect at the same time?

And why, also, may not the sun, at a certain time, send forth his radiance languidly, and again renew his splendour, when, *in his passage* through the air, he has passed by *certain* places which, *we may suppose*, are hurtful to his beams, *and* which cause his fires to be suppressed and extinguished?

And why should the earth have power,[2] in its turn, to deprive the moon of light, and, *passing* itself above, to keep the sun shut out *from her*, (while she passes monthly through the dense coniform shadow,) and *why* should not some other body be able, at that time, to pass beneath the moon, or to glide over the orb of the sun, which *body* may intercept *from her* his *effulgent* rays and spreading light?

And still, if the moon shines herself by her own brightness, why may she not grow dim in a certain part of the world, while she passes through regions noxious to her light?

For what remains, since I have shown how every thing may occur in the blue sky of *our* vast world, in order that we might understand what power and causes might produce the varied course of the sun and the wanderings of the moon, and by what means they are accustomed to have their light obstructed and eclipsed,[3] and to spread sudden darkness over the earth, (when they shut their eyes, as it were, *for a time*, and then, having opened them again, cover every fair region with

[1] Some other body——devoid of light.] Ver. 755. *Aliud corpus—cassum lumine.* Compare what he says in reference to the phases of the moon, ver. 716, *seq.* Comp. also ver. 764—766.

[2] And why should the earth have power, &c.] Ver. 761.

> Et quur terra queat lunam spoliare vicissim
> Lumine, et oppressum solem super ipsa tenere,
> Menstrua dum rigidas coni perlabitur undas.

"*Ipsa* is to be referred to *the earth*, as the sense of the following verses proves." *Faber.* By *coni umbras*, says Lambinus, is meant "the extreme part of the earth's shadow; though some by the *cone* understand *the earth itself;* which Aristotle (Μετεώρ. lib. ii.) affirms to be shaped like a drum, and says that lines drawn from its centre form two cones." Creech interprets, "rigidam terræ umbram, quæ est conicæ figuræ;" to which interpretation I have adapted my version.

[3] To have their light obstructed and eclipsed.] Ver. 774. *Offecto lumine obire.*

shining light,) I now return to the early age of the world, and the tender fields of earth, *to consider* what *kind of productions* they first ventured,[1] with *their* new *power of* generation, to raise into the regions of light, and to commit to uncertain winds.

In the beginning, *then*, the earth spread over the hills the growth of herbs, and the beauty of verdure, and the flowery fields, throughout all regions, shone with a green hue; and then was given, to the various kinds of trees, full power of shooting upwards through the air.[2] *For* as feathers, and hairs, and bristles, are first produced over the limbs of quadrupeds and the bodies of the winged tribes, so the new earth then first put forth herbs and trees; *and* afterwards generated the numerous races of animals,[3] which arose in various forms and by various modes. For animals, that were to live on the earth, could assuredly neither have fallen from the sky,[4] nor have come forth from the salt depths *of the sea*. It remains, *therefore, to believe* that the earth must justly have obtained the name of MOTHER, since from the earth all *living creatures* were born. And even now many animals spring forth from the earth, *which are* generated by means of moisture and the quickening heat of the sun. It is accordingly less wonderful, if, at that time, *creatures* more numerous and of larger size arose, *and* came to maturity while the earth and the air were yet fresh *and vigorous*.

First of all, the race of winged animals, and variegated birds, left their eggs, being excluded in the season of spring; as grasshoppers, in these days, spontaneously leave their thin coats[5] in the summer, proceeding to seek sustenance and life.

Next, be assured, the earth produced, for the first time, the tribes of men and beasts; for much heat and moisture abound-

[1] Ventured.] Ver. 780. *Creduint.* "*Creduint* for *crediderint*, i. e. *confisa, ausa fuerint* arva." *Forbiger. Sed alii aliter.*

[2] Full power of shooting upwards through the air.] Ver. 785. *Crescundi magnum immissis certamen habenis.* Virg. Georg. ii. 363.

Dum se lætus ad auras
Palmes agit, *laxis* per purum *immissus habenis.*

[3] Numerous races of animals.] Ver. 789. *Mortalia corda multa.* Al. *sæcla.*

[4] Fallen from the sky, *&c.*] Ver. 791. See ii. 1154—1157.

[5] Thin coats.] Ver. 801. *Folliculos tenues.* Comp. iv. 56 "Rotundas gracilesque tunicas." *Creech.*

ed through the plains, and hence, where any suitable region offered itself, *a kind of* wombs sprung up.[1] adhering to the earth by fibres. These, when the age of the infants *within them*, at the season of maturity, had opened, (escaping from their moist-enclosure, and seeking for air,) nature, in those places, prepared the pores of the earth, and forced it to pour from its open veins a liquid like milk; just as every woman at present, when she has brought forth, is stored with sweet milk, because all the strength of the food is directed to the breasts. *Thus* the earth afforded nourishment to the infants; the warmth *rendered* a garment *unnecessary;* and the grass *supplied* a couch abounding with luxuriant and tender down.

But the early age of the world gave forth neither severe cold nor extraordinary heat, nor winds of impetuous violence. For all these alike increase and acquire strength *by time.*

For which cause, *I say* again and again, the earth has justly acquired, *and justly* retains, the name of MOTHER, since she herself brought forth the race of men, and produced, at *this* certain time, almost every kind of animal which exults over the vast mountains, and the birds of the air, at the same period, with *all their* varied forms. But because she must necessarily have some termination to bearing, she ceased, like a woman, exhausted by length of time. For lapse of time changes the nature of the whole world, and one condition after another must succeed to all things, nor does any being continue *always* like itself. All is unsettled; nature alters and impels every thing to change. For one thing decays, and, *grown* weak through age, languishes; another, again, grows up, and bursts forth from contempt.[2] Thus age changes the nature of the whole world, and one condition after another falls upon the earth; *so that* what she could *once bear* she can *bear* no *longer; while* she can *bear* what she did not bear of old.

The earth, also, in that age, made efforts to produce various monsters, that sprung up with wonderful faces and limbs; the hermaphrodite, between both *sexes*, and not either,

[1] Wombs sprung up, *&c.*] Ver. 806. *Crescebant uteri terræ radicibus apti.* This is mentioned as an opinion of some philosophers by Diod. Sic. i. 7, and as an opinion of Epicurus by Censorinus, p. 11, 9.

[2] Bursts forth from contempt.] Ver. 831. *E contemtibus exit.* He repeats the same expression in ver. 1278.

but removed from both; others wanting feet, and others destitute of hands; *some* also were found dumb for want of a mouth, and *some* blind without *even* a face; *and others again* were shackled by the cohesion of their limbs over their whole bodies, *so* that they could neither do any thing, nor go in any direction; *could* neither avoid harm, nor take what was necessary *to preserve life.*

Other prodigies and portents of this kind she generated; *but* to no purpose; for nature abhorred *and prevented* their increase; nor could they reach the desired maturity of age, or find nutriment, or be united in the pleasures of love. For we see that many *circumstances* must concur with *other* circumstances, in order that *living creatures* may be able to produce their kinds by propagation. First *it is necessary* that there be food; then that there be genial semen throughout the organs, which may flow when the limbs are relaxed *in union;* and likewise, for the female to be united with the male, *they must both* have correspondent *members,* by which each may combine *in* mutual delight with the other.

Many kinds of animal life, too, must then have perished, not having been able to continue their species by propagation. For whatever *creatures* you see breathing the vital air, *assuredly* either craft, or courage, or at least activity, has preserved and defended their race from the commencement of its existence. And there are many which, from their usefulness *to mankind,* remain, *as it were,* intrusted to us, *and* committed to our guardianship.

In the first place, courage has protected the fierce brood of lions, and the savage races *of other wild animals; and* craft *has secured* the fox, as swiftness *has saved* the stag. But the light-slumbering breed of dogs, with their faithful affections, and all the various species of horses,[1] and the woolly flocks, too, and horned cattle, all these, *my dear* Memmius, are committed to the protection of man. For they have anxiously avoided wild beasts, and have sought peace; and plenty of subsistence has been provided for them without labour of theirs, which *subsistence* we secure to them as a reward in

[1] And all the various species of horses.] Ver. 863. *Et genus omne quod est veterino semine partum.* I have translated this by *horses,* but it means all kinds of beasts that are serviceable to man by carrying or drawing. Quasi *veheterinus,* from *veho.* Comp. ver. 888.

return for their service. But of those to whom nature has given no such qualities, that they should either be able to live of themselves, or to afford us any service, why should we suffer the races to be maintained and protected by our support? Indeed all these, rendered helpless by their own fatal bonds, were exposed as a prey and a prize to other *animals*, until nature brought their *whole* species to destruction.

But Centaurs, and such creatures, there neither were, nor ever can be; *for there can never exist* an *animal* formed of a double nature and of two bodies; *an animal* made up of *such* heterogeneous members that the power in the opposite portions *of the frame* cannot possibly be equal. This you may learn, with however dull an understanding,[1] from the following observations.

First, the horse, when three years *of his age* have passed, is flourishing in *full* vigour; the boy, at this time of life, is by no means *so*, but will even often seek in his sleep the milky teats of *his mother's* breast. Afterwards, when, in old age, his lusty vigour and stout limbs are failing the horse, (*growing* torpid as life is departing,) *behold*, at that very period, the young man's age being in its flower, youth prevails in him,[2] and clothes his cheeks with soft down; so that you cannot possibly imagine that Centaurs can be composed or consist of a man and the servile seed of a horse;[3] or *that there can be* Scyllæ, of half-marine bodies, cinctured with fierce dogs; or other *monsters* of this sort, whose parts we observe to be incompatible with each other; *parts* which neither grow up together in their bodies, nor acquire vigour *together*, nor lose their strength[4] *together* in old age; *and which* are neither excited by the same objects of affection, nor agree with the same tempers, nor *find that* the same *kinds of food* are nutritious to their bodies.[5] For you may observe that bearded

[1] With however dull an understanding.] Ver. 880. *Quamvis hebeti corde.*

[2] Youth prevails in him.] Ver. 887. *Juventas Officit.* "Intervenit." *Wakefield.* Al. *Occipit.*

[3] Servile seed of a horse.] Ver. 888. *Veterino semine equorum* Comp. ver. 863.

[4] Lose their strength.] Ver. 894. *Perficiunt.* "That is, bring (their strength) to an end." *Wakefield.*

[5] Nutritious to their bodies.] Ver. 896. *Joconda per artus. Jucundus*, from *juvo*, to help or sustain.

goats often grow fat on hemlock, which to men is rank poison.

Since, too, the flame of fire is accustomed to scorch and burn up the tawny bodies of lions, as well as every kind *of creature* on earth that consists of flesh and blood, how was it possible that a Chimæra, one *animal compounded* of three bodies, the fore part a lion, the hinder a dragon, the middle a goat,[1] could blow abroad at its mouth a fierce flame out of its body?

For which reason, he who supposes that such animals might have been produced, even when the earth was new and the air fresh, (leaning *for argument* only on this empty term of newness,) may babble, with equal reason, many *other hypotheses of a like nature.* He may say that rivers of gold then flowed every where over the earth, and that the groves were accustomed to blossom with jewels; or that men were formed with such power *and bulk* of limbs, that they could extend their steps over the deep seas, and turn the whole heaven around them with their hands. For though, at the time when the earth first produced animal life, there were innumerable seeds of things in the ground, this is yet no proof that creatures could have been generated of mixed natures, and *that heterogeneous* members of animals *could have been* blended together. Since the *various* kinds of herbs, and fruits, and rich groves, which even now spring-up-exuberantly from the earth, can nevertheless not be produced with a union of *different* kinds. But *they can readily be produced*, if each proceeds in its own order, and all preserve their distinctions according to the fixed law of nature.

And that *early* race of men upon the earth was much more hardy; as it was natural *that they should be*, for the hard earth *herself* bore them. They were internally sustained with bones both larger and more solid, and furnished with strong nerves throughout their bodies; nor *were they a race* that could easily be injured by heat or cold, or by change of food, or by any corporeal malady.

And during many lustres of the sun, revolving through the heaven, they prolonged their lives after the roving manner of wild beasts. No one was either a driver of the crooked

[1] The middle a goat.] Ver. 903. *Media ipsa. Chimæra* (χίμαιρα) signifies a goat.

plough, or knew how to turn up the fields with the spade, or to plant young seedlings in the earth, or to cut, with pruning-hooks, the old boughs from the lofty trees. That supply which the sun and rain had afforded, *or* which the earth had yielded of its own accord, sufficiently gratified their desires. They refreshed themselves, for the most part, among the acorn-laden oaks. The earth, too, then furnished abundance of whortle-berries,[1] even larger *than at present*, which you now see ripen in winter, *and become* of a purple colour. And many rude kinds of nourishment besides, ample for hapless mortals, the florid freshness of the world in those days produced.

The rivers and fountains then invited them to quench their thirst, as the echoing fall of waters from the high hills now calls, far and wide, the thirsty tribes of wild beasts. Afterwards they occupied the sylvan temples of the nymphs, well known to the wanderers; from which *the goddesses* sent forth flowing rills of water,[2] to lave with a copious flood the humid rocks, trickling over the green moss, and to swell and burst forth, with a portion *of their streams*, over the level plain.

Nor as yet did they understand how to improve their condition by the aid of fire, or to use skins, and to clothe their bodies with the spoils of wild beasts. But they dwelt in groves, and hollow mountains, and woods; and, when compelled to flee from the violence of the wind and rain, sheltered their rude limbs amid the thickets.

Nor could they have regard to *any* common interest, or

[1] Whortle-berries.] Ver. 939. *Arbuta.* Good translates this, "The wild wood-whortle," observing that commentators have uniformly understood that "the arborescent and garden strawberry-tree" is here signified, which bears "a crimson fruit about the size of an Orleans plum;" but that this fruit is "extremely sour and unpleasant to the taste," and is never employed "for purposes of food." He therefore thinks that Lucretius means that species of arbutus called by Caspar Bauhine "*Vitis Idæa*, the common whortle or cranberry," which "has an agreeable sub-acid flavour when tasted alone," but "is more generally eaten with cream or milk sweetened with sugar, or else in the form of preserves; in which latter state it is very largely made use of in Russia, and, indeed, among all the northern nations."

[2] Flowing rills of water.] Ver. 948. *Humore fluenta Lubrica.* "Id est, fluenta humida et liquida." *Lambinus.* The words *Humida saxa*, "humid rocks," are elegantly repeated in the original, but could not be repeated to any purpose in a prose translation.

understand how to observe any customs or laws among themselves. Whatever prize fortune had thrown in the way of any one, *on that* he seized; each knowing *only* to profit by his own instinct, and to live for himself.

And Venus united the persons of lovers in the woods; for either mutual desire reconciled each female *to the intercourse*, or the impetuous force and vehement lust of the man *overcame her;* or acorns and whortle-berries, or choice crabs,[1] were the purchase *of her favours.*

And, relying on the extraordinary vigour of their hands and feet, they pursued the sylvan tribes of wild beasts with missile stones and ponderous clubs; and many they overcame, *while* a few escaped them in their dens; and, when surprised by night, they threw their savage limbs, like bristly boars, unprotected on the earth, covering themselves over with leaves and branches.

Nor did they, trembling *and* wandering in the shades of night, seek *to recall* the day[2] and the sun with loud cries throughout the fields, but, silent and buried in sleep, they waited till Phœbus, with his roseate beams, should *again* spread light over the heavens. For since they had always been accustomed, from their infancy, to see darkness and light produced at alternate seasons, it was impossible that they should ever wonder *at the change*, or feel apprehension lest, the beams of the sun being withdrawn for ever, eternal night should keep possession of the earth. But what rather gave *them* trouble, *was*, that the tribes of wild beasts often disturbed the rest of hapless *sleepers;* while, driven from their cell at the approach of a foaming boar or stout lion, they fled from their rocky shelter, and yielded up with trembling, at the dead of night, their couches of leaves to the savage intruders.

Nor *yet* did the race of men, in those days, leave with lamentations the sweet light of life in much greater numbers

[1] Choice crabs.] Ver. 963. *Pira lecta.* "Pears," says Good, "are a *cultivated* fruit, introduced, indeed, by grafting or inoculation alone, from the wild crab, which is the common origin of the pear, the apple, and the quince." He therefore translates *pira* "crabs," and I have followed him.

[2] Nor did they—seek *to recall* the day, &c.] Ver. 971. *Nec plangore diem*, &c. Some philosophers had attributed such surprise and despair to the earliest race of men; to which Manilius alludes, book i. 66, *seq.*

than at present. For *though* more *frequently* at that period, one individual of their number, being caught by wild beasts, and consumed by their teeth, afforded them living food, and filled, *meanwhile*, the groves, and mountains, and forests, with his shrieks, as he felt his bowels buried in a living tomb;[1] while those whom flight had saved, with their bodies torn, and pressing their trembling hands over their grievous wounds, called on death with horrid cries, until, destitute of relief, and ignorant what their hurts required, cruel tortures[2] deprived them of life. Yet, *in those times*, one day did not consign to destruction many thousands of men under *military* banners; nor did the boisterous floods of the sea dash ships and men upon rocks. But the ocean, *though* often rising *and swelling*, raged in vain and to no purpose,[3] and laid aside its empty threats without effect; nor could the deceitful allurement of its calm water entice, with its smiling waves, any one into danger; *for* the daring art of navigation was then unknown. Want of food then consigned languishing bodies to death; now, on the contrary, abundance of luxuries causes destruction. The men *of those times* often poured out poison

[1] As he felt his bowels buried in a living tomb.] Ver. 991. *Viva videns vivo sepeliri viscera busto.* Gorgias the rhetorician is censured by Longinus (Sect. 3) for calling vultures ἔμψυχοι τάφοι, but Lucretius, says Faber, being a poet, may be allowed to use such an expression. There is a similar conceit in Milton, Sams. Ag. ver. 102,

Myself my sepulchre, a moving grave.

And another in Pope, Essay on Man, iii. 162,

———Man———
Of half that live the butcher and the tomb.

[2] Cruel tortures.] Ver. 995. *Vermina sæva.* "*Vermina* is a disease of the body, with a slight motion in it, as if the patient were afflicted with worms. It is called by the Greeks στροφὸς." *Festus.* "*Vermina* sunt tormina, unde *verminari*, pati tormina." Vossius De Anal. i. p. 150. Creech interprets *vermina* simply *vermes*, and Good gives "vile worms," which may, indeed, be the right sense.

[3] But the ocean, *though* often rising *and swelling*, raged in vain and to no purpose.] Ver. 1002. This is the only passage in which I have departed from the text of Forbiger, in whose edition it stands thus: *Nec temere incassum frustra mare sæpe coörtum sævibat.* He attempts to make sense of it by referring the conjunction *nec* "not only to the verb *sævibat*, but to all the sentence, as if Lucretius had said, *nec sæpe temere mare coöriebatur et sævibat.*" But whom will this satisfy? Wakefield supplies *in naves* from the preceding verse, as if Lucretius would have said that the ocean did *not often* rage

for themselves unawares; now *persons* of their own accord give *it* craftily to others.

Afterwards, when they procured huts, and skins, and fire, and the woman, united to the man, came to dwell in the same place *with him;* and *when* the pure *and* pleasing connexions of undivided love were known, and they saw a progeny sprung from themselves; then first the human race began to be softened *and civilized.* For fire now rendered their shivering bodies less able to endure the cold under the canopy of heaven; and love diminished their strength; and children with their blandishments easily subdued the ferocious tempers of their parents. Then, also, neighbours, feeling a mutual friendship, began to form agreements not to hurt or injure *one another;* and they commended, with sounds and gestures, their children, and the female sex, to each other's protection; while they signified, with imperfect speech, that it is right for every one to have compassion on the weak. Such concord, however, could not be established universally; but the better and greater part kept their faith inviolate, or the human race would then have been wholly destroyed, and the species could not have continued its generations to the present period.

But nature prompted *men* to utter the various sounds of the tongue, and convenience drew from *them* the names of things, almost in the same manner as inability to use the tongue seems to excite children to gesture, when it causes them to point with the finger at *objects* which are present before them. For every *creature* is sensible that it can use its own faculty. *Even* before horns are produced on the forehead of a calf, it butts and pushes fiercely with it when enraged; and the young of panthers, and whelps of lions, contend with their talons, and feet, and teeth, when their teeth and talons are yet scarcely grown. We see, moreover, that the whole race of birds trust to their wings, and seek a fluttering support from their pinions. To suppose, therefore, that any one *man*[1] then assigned names

against ships when there were no ships. Try what mode of explanation you please, "nec," as Lachmann says, "perverts the sense." Lambinus reads *sed*, and him I have followed. Lachmann himself gives *hic*. The meaning of the passage evidently is, that there were then no ships for the ocean to wreck.

[1] To suppose, therefore, that any one *man*, *&c.*] Ver. 1040. *Proinde*

to things, and that men thence learned their first words, is to think absurdly; for why should this *one man* be able to distinguish all things with names, and to utter the varied accents of the voice, *and* others not be deemed able to do this at the same time? Besides, if others had not also used words among themselves, whence was the knowledge *of them* ingrafted *in him*? Whence was power first given to him, that he should understand, and discern in his mind, what expediency would wish to effect? One, likewise, would not be able to compel many, and oblige them, by force, to submit to learn *his* names of things; nor *could* he by any means teach, or persuade *men* unfitted to listen, what was necessary to be done; for neither would they at all bear with patience, or long suffer him to din into their ears, to no purpose, the strange *and unintelligible* sounds of his voice.

Lastly, what is there so wonderful in this matter, if the human race, whose voice and tongue were in full vigour, distinguished various objects by sounds, according to their various feelings; when dumb cattle, and even the tribes of wild beasts, are wont to utter different and distinct cries when terror or pain affects *their hearts*, and when joy prevails in them? For this you may observe by manifest instances.

When the large flabby jaws of the Molossian dogs begin to growl, as they are irritated, exposing their hard teeth, their violent fury[1] threatens with a far different sound from *that which they utter* when they merely bark, and fill all *the neighbourhood* with yelping. And when they begin to lick their whelps tenderly with their tongue, or when they fondle them with their paws, and, snapping at them, affect gently to swallow them up with teeth suspended *over them*, they soothe them with *a sort of* whining, *using their voice* far otherwise than when they howl, deserted in *lonely* buildings, or when,

putare aliquem tum nomina distribuisse, &c. "This is directed against Pythagoras, to whom it seemed to have been the office of the highest wisdom to give names to all things; and against Plato, who, in his Cratylus, says that names were given to things, not by chance, but by regular plan and contrivance; and that he who first invented the names was called ὀνοματουργὸς, and ὀνοματοθέτης." *Lambinus.*

[1] Violent fury.] Ver. 1064. *Rabies districta.* Fury *drawn like a sword*, as Wakefield interprets it; equivalent to *rabiosi dentes districti.*

with crouching body, they slink whimpering from beneath a blow.

Again, does not the voice of the horse seem also to differ, when, *as* a vigorous steed in the flower of his age, *and* pierced with the goads of winged love, he rages-wildly among the mares; and when he utters a snorting for war from his expanded nostrils, and thus, with his limbs trembling, neighs in *quite* other tones?[1]

Further, the winged tribes, and various birds, hawks, and eagles,[2] and gulls, which, amid the waves of the sea, seek their food and living in the salt *water*, utter far other cries at other times, than when they contend for sustenance and fight about prey. Occasionally, also, the long-lived generations of crows, and the flocks of ravens, change their hoarse notes with the weather, when they are said *sometimes* to call for rain and showers, and sometimes to cry for gales of wind.

If various feelings, therefore, impel the *inferior* animals, though they are destitute of speech, to utter various sounds, how much more consonant is it to reason, that men, *even* in those *early* days, should have been able to distinguish different objects by different names!

And lest, perchance, in reference to these subjects, you should meditate with yourself as to the following *point, and be anxious to know the origin of fire, I will inform you that* lightning first brought flame down upon the earth for mortals, *and*

[1] Thus—neighs in *quite* other tones.] Ver. 1075, 1076.

Et fremitum patulis sub naribus edit ad arma,
Et quom sic aliàs, concussis artibus, hinnit?

This is Forbiger's reading. Wakefield injudiciously transposed the two verses. Lambinus (whom Creech follows) reads *Et quom sis*, for *suis*, justly observing that the *sic* is "idle and unmeaning." He also asks the question, "Quænam arma? Martiane, an Venerea?" but does not decide for either; Lachmann understands the latter. Creech paraphrases the lines thus: "vel cùm in pugnam initurus è patulis naribus hinnitum edit, et cùm alias propter causas artibus concussis hinnit;" understanding, apparently, the first verse *de armis Martiis*, and the second *de armis Venereis*. I have referred them both to the arms of Mars, believing that Virgil had this passage in his mind when he wrote the vigorous lines,

Stare loco nescit, micat auribus, et *tremit artus*, &c.

[2] Eagles.] Ver. 1078. *Ossifragæ*. "A kind of eagle; see Pliny, x. 2." *Lambinus*.

that from thence all the fire *in the world*[1] is spread abroad. For we *even now* see many substances, struck with fire from heaven, ignite, when the ethereal region has sent down its flames. Though *it is not to be forgotten, indeed*, that when a branching tree,[2] struck by the winds, is *shaken and* agitated, moving to and fro, *and* pressing against the boughs of *another* tree, fire, excited by the violent friction, is elicited; *so that* sometimes, while the branches and stems are rubbed together, a fervid glow of flame bursts forth; of which *causes, accordingly*, either might have supplied fire to mankind.

The sun next instructed them to dress their food, and soften it with the heat of flame; for they saw many things, throughout the fields, mollified by the force of his beams and subdued by his warmth. Hence those who excelled in sense, and had power of understanding, taught *the others*, every day more *and more*, to change *their* rude diet,[3] and former *mode of* life, for new practices and *improvements by means of* fire.

At length the leaders began to build cities, and to found fortresses, as a protection and refuge for themselves. They also divided the cattle and the fields, and allotted them according to the beauty, and strength, and understanding of each *individual;* for beauty was *then* much esteemed, and strength had great influence. Afterwards wealth was introduced, and gold brought to light, which easily robbed the strong and beautiful of their honour; for men, however strong, or endowed with *however* beautiful a person, generally follow the party of the richer.

But to man, whoever governs his life according to true reason, it is great wealth to live on a little with a contented mind; for of a little there is no want. Yet men wished themselves to be honoured and powerful, that their fortune might rest on a steady foundation, and that themselves, being

[1] All the fire *in the world.*] Ver. 1092. *Omnis flammarum ardor.*

[2] When a branching tree, *&c.*] Ver. 1095. See i. 896.

[3] Every day more *and more* to change *their* rude diet.] Ver. 1104. *Inque dies magis invictum—commutare. Invictus* is a word introduced from three MSS. by Forbiger, in the sense of βίος ἄβιος. Lambinus and Wakefield read *in victum;* and Wakefield explains *commutare in victum* to be the same as *commutare victum*, or *mutationes importare in victum.* But Creech adopted *hi victum*, from a conjecture of Naugerius, which Lachmann has retained. In Forbiger there is a misprint of *Inde* for *Inque.*

strong, might pass an undisturbed life. *But this they desired* in vain; for, as they strove to reach the highest honours, they rendered the course of their steps full of trouble. And still, *though they attain their object*, envy, like a thunderbolt, hurls them at times from their pre-eminence, *and* sinks them with scorn *as* into the gloom of Tartarus; *so* that it is far better to obey in quiet, than to seek to hold states under *our* sway, and to manage kingdoms. Let *men*, therefore, *if they will*, sweat out their life's blood,[1] wearying themselves to no purpose, and struggling along the narrow road of ambition; (for the highest *objects*, and whatever are more exposed on eminences,[2] are generally *sooner* scorched with envy as well as with lightning;) since they gather knowledge only from the mouths of others, and pursue things rather from what they hear than from their own judgments. Nor does this *folly* prevail more now, or will it prevail *more* hereafter, than it has *already* prevailed in past time.

Kings, therefore,[3] being *deposed and* slain, the ancient majesty of their thrones, and their proud sceptres, lay overthrown *in the dust;* and the illustrious ornament of the royal head, stained with blood beneath the feet of the rabble, mourned *the loss of* its supreme honour; for that which has been too much feared before, is eagerly trodden down.

Power, accordingly, returned to the lowest dregs and rabble *of mankind*, whilst each sought dominion and eminence for himself. *But* at length the *wiser* part taught *them* to establish a government, and made laws *for them*, that they might consent to observe order; for mankind, weary of passing their lives in *a state of* violence, were worn out with contentions; on which account they fell more submissively under the power of laws and strict ordinances. For because every one, in his resentment, prepared to take revenge for himself more severely than is now allowed by equitable laws, men, for this reason, became disgusted with living in strife. *Since*, from this source,

[1] Sweat out their life's blood.] Ver. 1128. *Sanguine sudent.* I am indebted to Good for the translation of these words.

[2] Whatever are more exposed on eminences.] Ver. 1131. *Quæ sunt altis magis edita quomque.* "Exposed on high places, or prominent." *Wakefield.*

[3] Kings, therefore, &c.] Ver. 1135. *Ergo regibus occisis.* The *ergo*, therefore, refers to what is said, in the preceding paragraph, about the lofty being humbled; unless, indeed, some lines have been lost.

the fear of punishment poisons the enjoyments of life; for violence and injury involve every one, and generally recoil upon the head of him from whom they arose; nor is it possible for *any one* to live a quiet and peaceable life, who violates by his actions the common bonds of peace. For though *his guilt* escape, for a time, the knowledge of both gods and men, yet he cannot feel sure that it will always be hidden; since many, speaking frequently in dreams, or being delirious in sickness, are said to have revealed *their secrets*, and to have published to the world long-concealed crimes.

In the next place, what cause spread abroad, throughout the wide nations *of the earth*, the *notion of the existence and* power of the gods, and filled cities with altars, and led solemn sacred rites to be instituted; (which sacred rites now flourish *and are performed* on all important occasions and *in all distinguished* places;) whence also terror pervades mortals; *a terror* which raises new temples of the deities throughout the whole globe of the earth, and impels *men* to celebrate their worship on feast days; it is not so difficult, *as it may seem*, to explain.[1]

For, in those *early* times *of which we speak*, the tribes of mortals beheld in their minds, *even* when awake, glorious images *as* of gods,[2] and *saw them*, in their sleep, *still* more *distinctly*, and of a wondrous magnitude of figure. To these, therefore, they attributed vitality, because they seemed to move their limbs, and to utter majestic words, suitable to their distinguished appearance and mighty strength. And they assigned *to them* an immortal existence, because their appearances came-in-constant-succession, and *their* form remained the same; although *they might* certainly *have deemed them immortal on another account*,[3] as they would consider that

[1] To explain.] Ver. 1167. *Rationem reddere verbis.*

[2] Glorious images *as* of gods.] Ver. 1168. *Divôm egregias facies.* This is a most unsatisfactory way of accounting for the first conception of supernatural beings. "Consistently with his common doctrine," says Good, "Lucretius imputes the more frequent appearance of those heavenly semblances, or rather their being more frequently perceived by mankind, in those early ages of the world, to the greater degree of solitude and tranquillity in which life was then passed." This is, however, not to be found in the passage before us. Other commentators are silent.

[3] Although *they might* certainly *have deemed them immortal on another account.*] Ver. 1176. *Et tamen omnino.* The words supplied are

beings, endowed with such *apparent* strength, could not easily be subdued by any *destructive* force. And they thought them pre-eminent in happiness, because the fear of death could *thus* trouble none of them, and because, at the same time, they saw them, in their dreams, do many and wonderful *actions*, and experience, *as it seemed*, no difficulty in the performance of them.

Besides, they observed the revolutions of the heavens, and the various seasons of the year, go round in a certain order, and *yet* could not understand by what causes these *effects* were produced. They had, then, *this* resource for themselves, to ascribe all things to gods, and to make all things be guided by their will.

And the seats and abodes[1] of *these* gods they placed in the sky, because through the sky the night and the moon are seen to revolve; the moon, *I say*, the day, and the night, and the august constellations[2] of night, and the nocturnal luminaries of the heavens, and the flying meteors, *as well as* the clouds, the sun, rain, snow, winds, lightnings, hail, and the vehement noises and loud threatening murmurs *of the thunder*.

O unhappy race of men! as they attributed such acts, besides ascribing bitter wrath, to the gods! What lamentations did they then prepare for themselves, and what sufferings for us! what fears *have they entailed* upon our posterity!

Nor is it any piety *for a man* to be seen, *with his head* veiled, turning towards a stone, and drawing near to every altar; or to fall prostrate on the ground, and to stretch out his hands before the shrines of the gods; or to sprinkle the altars with copious blood of four-footed *beasts*, and to add vows to vows; but *it is* rather *piety* to be able to contemplate all things with a serene mind. For when we look up to the celestial regions of the vast world above, and *contemplate* the firmament studded with glittering stars, and reflect upon the revolutions of the sun and moon, the apprehension lest there should, perchance, be an almighty power of the gods above us, which guides the stars in their various motions, begins then to raise its head, *as if* awaking, within our breast; *an*

from the suggestion of Wakefield. Other editions have *Et manet omnino*, which is not very intelligible.

[1] Abodes.] Ver. 1187. *Templa.* "Domos." *Creech.*

[2] August constellations.] Ver. 1189. *Signa severa.* "Veneranda, dia, sacra." *Lambinus.*

apprehension which, perhaps, before lay dormant under the weight of other cares. Since poverty of reason, *and ignorance of natural causes*, disquiet the mind, while it doubts whether there was any birth *or* commencement of the world, or whether there is any limit of time, until which the walls of the world,[1] and the silent movements *of the heavenly bodies*, can endure this *incessant* labour; or whether *the heavens*, divinely endowed with an imperishable nature, can, as they roll along time's eternal course, defy the mighty power of endless age.

Besides, whose heart does not shrink at the terrors of the gods? Whose limbs do not shudder with dread, when the scorched earth trembles with the awful stroke of lightning, and *when* the roars *of thunder* pervade the vast heaven? Do not people and nations tremble? And do not proud monarchs, penetrated with fear of the deities, recoil in every nerve, lest, for some foul deed, or arrogant word, the dread time of paying penalty be come?

When, likewise, the mighty force of a tempestuous wind, *raging* over the sea, sweeps athwart the deep the commander of a fleet with *all* his powerful legions and elephants,[2] does he not solicit peace of the gods with vows, and timidly implore them with prayers, for a lull of the winds and a prosperous gale? *But, alas! he implores them* to no purpose; for, frequently, seized by a violent hurricane, he is nevertheless borne away to the shoals of death. Thus some unseen power, apparently, bears upon human things, and seems to trample down proud fasces and cruel axes, and make them *merely* a sport for itself.

Further, when the whole earth totters under our feet, and cities, shaken *to their base*, fall or threaten to fall, what wonder *is it*, that the nations of the world despise *and humble* themselves, and admit the vast influence of the gods over the world, and *their* stupendous power to govern all things?

Moreover, brass, and gold,[3] and iron were discovered, as

[1] Walls of the world.] Ver. 1212. *Mœnia mundi.* That is, the heavens. Men cannot but suspect that the heavens may at length be worn out by perpetual revolutions.

[2] Elephants.] Ver. 1227. Which he is transporting, to make war in a foreign country.

[3] Moreover, brass, and gold, &c.] Ver. 1240. *Quod superest æs atque aurum*, &c. He now proceeds to tell how metals were discovered.

well as heavy silver, and the substance of lead,[1] *at a time* when fire had consumed mighty forests upon the high mountains, either from lightning having been hurled *upon them*, or because *men*, warring among themselves in the woods, had set fire *to them* for a terror to their enemies; or *else* because, moved by the goodness of the soil, they wished to lay open fertile fields, and to render the country fit for pasturage; or *because they sought* to kill the wild beasts, and to enrich themselves with their spoils. For to catch the game by means of pitfalls and fire, became a practice before *men* surrounded the forest with nets, or roused *the animals* with dogs.

However this may be, *or* from whatever cause the rage of the fire, with frightful noise, had consumed the woods from their deepest roots, and had melted the earth with heat, there flowed from the boiling veins, uniting in the hollow places of the soil, a stream of silver and gold, as well as of brass and lead; which, when they afterwards saw *it* congealed, *and* shining with a bright colour on the ground, they took up, being attracted by its glittering and smooth lustre; and they observed that *the masses* were formed of the same shape as the figure of the receptacle of each had been. It then occurred to them, that these *metals*, being melted with heat, might settle into any form or figure of things, and might also be fashioned, by beating out, into the sharpest and finest points of instruments, *so* that they might make tools for themselves, and be able both to cut down the woods, and hew timber, and smooth and polish boards, as well as to pierce, excavate, and bore.

These *instruments* they at first attempted to make of silver and gold, no less than of the strong substance of hard brass; *but* in vain; for the consistence *of those metals* yielded *and* gave way, and *both* were alike unable to bear severe usage Accordingly brass was *then* more in esteem, and gold was

Similar extractions of metals from the earth, casual or otherwise, are mentioned by Aristotle, De Mirab. p. 102, ed. Sylb.; Athenæus vi. 4, *sub fin.*; Strabo, lib. iii. p. 147; Diodorus Siculus, Ant. lib. iv., *haud longè ab init.* *Æs* I have rendered *brass*, (not *copper*, as Good translates it,) for Servius, (ad Æn. xii. 87,) alluding to this very passage of Lucretius, makes it equivalent to *orichalcum*, which is generally understood to be brass.

[1] Substance of lead.] Ver. 1241. *Plumbi potestas.* The same as *plumbi vis*, or *plumbum ipsum.*

neglected on account of its uselessness, *as taking only a* dull *edge* and blunt point; now brass is despised, and gold has succeeded to the highest honours. *For* thus revolving time changes the seasons of things; that which was *once* in estimation, becomes of no repute at all; while another thing succeeds, and bursts forth from contempt;[1] *something which* is daily more *and more* sought, and *which*, when found, flourishes among mankind with *special* praise and wonderful honour.

It is now easy for thee to understand of thyself, my Memmius, how the nature *and use* of iron were discovered.

The first weapons of *mankind* were the hands, nails, and teeth; also stones, and branches *of trees*, the fragments of the woods; then flame and fire *were used*, as soon as they were known; and lastly was discovered the strength of iron and brass. But the use of brass was known earlier than *that* of iron; inasmuch as its substance is more easy to work, and its abundance greater.[2] With brass they turned up the soil of the earth; and with brass they excited the tumults of war, and inflicted deep wounds, and took away the cattle and lands *of their neighbours;* for every thing unarmed and defenceless easily surrendered to those *that were* armed. Then gradually came forth the sword of steel, and the form of the brazen pruning-hook was turned into contempt. With iron they began to cleave the ground, and the contests of doubtful warfare were made equal.

And it appears that *man* mounted armed upon the back of a horse, and guided it with reins, and exerted his right hand *to fight*, before he tried the hazards of war in a two-horsed chariot. It also *doubtless* occurred earlier to yoke two horses than four, or than to mount in full armour on chariots equipped with scythes. In process of time the Carthaginians taught fierce elephants,[3] with towers on their backs, *and* with snake-like proboscis, to endure the wounds of war, and to throw vast

[1] Bursts forth from contempt.] Ver. 1277. See ver. 831.

[2] Its abundance greater.] Ver. 1283. *Copia major.* Viz. in those early times.

Χαλκῷ εἰργάζοντο, μέλας δ' οὐκ ἔσκε σίδηρος. Hes. Op. et D. 150.

[3] Elephants.] Ver. 1301. *Boves Lucas.* Elephants were so called by the Romans because they first saw them in Lucania, in the war with Pyrrhus. Plin. H. N. viii. 6, 6.—With snake-like proboscis.] *Anguimanos.* See ii. 538.

martial battalions into confusion. Thus sad discord produced one *invention* after another, to spread terror in battle among the tribes of men, and added daily increase to the horrors of contention.

They tried bulls, also, in the business of war, and endeavoured to impel fierce boars against the enemy. The Parthians, too, sent strong lions before them, with armed keepers and daring guides, to govern them and hold them in chains. *But such attempts were* in vain; for the savage *beasts*, heated with tumultuous slaughter, *and* shaking their terrible manes on every side, disordered *all* troops without distinction. Nor could the riders soothe the spirits of their horses, which were alarmed at the roaring *of the lions*, and turn them with the reins against the enemy. The lions, in their rage, threw themselves with leaps *among the soldiers* in every part; they flew at the faces of those who came against them, and seized on others from behind unawares, and, clasping them round about, threw them to the earth sinking under wounds, clinging to them with their strong teeth and hooked talons. The bulls tossed their own *people*, and trampled them under foot; they gored with their horns the sides of the horses, and their bellies underneath, and tore up the earth with alarming fury. But the boars killed their own friends with strong tusks, staining, in their rage, the broken darts with their blood, and spread promiscuous destruction among cavalry and infantry. For *though* the horses, leaping aside, shunned the fierce attacks of their teeth, or, rearing up, pawed the air with their feet, *yet they struggled* to no purpose; since you might have seen them sink down hamstrung, and cover the earth with a heavy fall. Whatever beasts they thought sufficiently tame at home, they saw, in the heat of action, maddened with wounds, cries, flight, terror, and tumult. Nor could they recall any portion of them *to order;* for all the different kinds of beasts scattered themselves abroad; as elephants even now, when imperfectly inured to weapons, flee hither and thither, after having inflicted much cruel damage on their masters.

Thus, *and with these views*, it is possible that they might act. But I am scarcely inclined *to think* that they could not originally foresee, and consider in their minds, how general and calamitous an evil *such warfare* would prove *to succeeding*

times. But they were willing to adopt[1] this *practice*, not so much with the hope of conquering, as to cause annoyance to the enemy; and *men* who distrusted their numbers, and were without *efficient* arms, *naturally grew desperate*, *and* were ready to perish themselves, *if they might but destroy their opponents.*

The garment *of skins*, fastened together, existed before the woven dress; the woven succeeded *the discovery of* iron; for by iron weaving is *performed.* Nor, indeed, of any other material can *instruments* of such smoothness *as* treadles, spindles, shuttles, and rattling yarn-beams, be produced.

And nature obliged men to work in wool before women; for all the male sex far excel in art, and are much more ingenious *than the female. This state of things continued* until the sturdy husbandmen made it a reproach *to the workers in wool; making* them consent to resign it to the hands of women, and themselves to endure hard labour together *with the tillers of the ground*, and strengthen their limbs and hands with severe toil.

But of sowing and planting,[2] and of grafting, nature, the great producer of *all* things, was herself the first example and origin. For berries and acorns that fell from the trees, exhibited, in the proper season, a crop of seedlings underneath; from *observing* which they also ventured to intrust slips to the boughs, and to plant young stocks throughout the fields.

They then tried different methods of tilling the kindly soil, and saw wild fruits become improved in their lands by being cherished and indulgently cultivated. And they compelled the woods to withdraw daily farther up the mountains, and to give room below for tillage; *so* that they might have meadows, lakes, rivulets, corn-fields, and rich vineyards throughout the hills and plains, and *that* a green tract of olives, marking *the ground*, might run between *other trees*, stretching far over the heights, and valleys, and plains; as you now see all *gardens* distinguished with varied beauty,

[1] But they were willing to adopt, *&c.*] Ver. 1346. Three verses which precede this, and which are evidently spurious or misplaced. I have omitted in the translation. Lachmann has ejected them from his text.

[2] But of sowing and planting.] Ver. 1360. *At—sationis Satie* means both sowing and planting. *Grafting* may be considered of more recent date than Lucretius makes it.

which, intersected with rows of dulcet apples, *men lay out and* adorn, and *which* they keep planted around with *other* fruit trees.

But to imitate with the mouth the liquid voices of birds[1] was *practised* long before men could play melodious tunes, and delight the ear *with music.* The whistling of the zephyr through the empty reeds first taught the rustics to blow through hollow stalks. Then by degrees they learned the sweet plaintive notes, which the pipe, pressed by the fingers of the players, pours forth; *the pipe, which is now* found through all the pathless groves, and woods, and glades, through the solitary haunts, and divine resting-places,[2] of the shepherds.

Thus time by degrees suggests every *discovery,* and skill evolves *it* into the regions of light *and fame.*

These *melodies* softened the hearts of those *swains,* and delighted them when they were satisfied with food; for then every thing affords pleasure.

Oftentimes, therefore, stretched upon the soft grass, near a rivulet of water, under the boughs of a high tree, they socially, *though* with no great wealth, gratified their senses with pleasure, especially when the weather smiled *upon them,* and the seasons of the year painted the green herbage with flowers. Then jests, and *pleasant* talk, and agreeable laughter, were wont to be *enjoyed;* for then the rustic muse had full vigour *and influence.* Then sportive gaiety prompted them to deck their heads and shoulders with garlands of flowers and leaves, and to stand forth *in* irregular *dances,* moving their limbs stiffly, and to stamp on mother earth with heavy foot; whence arose smiles and jocund laughter, because all these *exhibitions* had then greater effect, as being new and wonderful. Hence

[1] But to imitate—voices of birds, *&c.*] Ver. 1378. He says that the idea of music was taken from the singing of birds, and that of wind instruments from the whistling of the wind among reeds.

[2] Divine resting-places.] Ver. 1386. *Otia dia.* I know not whether Lucretius calls the haunts of the shepherds *dia* because they were supposed to be frequented by Fauns and other deities, or because they were *sub dio;* or whether he uses the epithet in some other sense. The commentators give no opinion, except that Creech, in his paraphrase, introduces *Pastores otio abundantes,* as if he took *dius* for *abundant, numerous.* But this acceptation I should be unwilling to adopt.

to produce various modulations of voice, and to weave tunes, and to run over the reeds with compressed lips, were compensations *for want* of sleep, as they watched *during the night.* From whom, also, the *men* of the present day, wakeful *in nocturnal orgies*, have received and maintain the same *practices*,[1] and have learned to preserve regularity of numbers; and yet they do not, even now, enjoy their amusement with greater delight than *that which* the sylvan sons of earth *then* experienced.

For that *gratification* which is present, if we have previously known nothing more agreeable, delights us pre-eminently, and seems to be superior *to every thing else;* but any thing better, which is discovered afterwards, blunts and alters our feelings as to all *we enjoyed* before. Thus dislike of acorns came upon *mankind;* thus those *ancient* beds, formed of grass and leaves, were abandoned. Skins, too, and the savage dress, fell into contempt; *a dress* of which I *can* imagine the discovery to have excited such envy,[2] that he who first wore it, *possibly* died from a treacherous-combination against him; and that *his garment*, being torn, with much bloodshed, among those *who slew him*, was at last spoiled, and rendered incapable of being used.

In those days skins, in these gold and purple, disturb the life of men with cares, and harass it with war. In which regard, as I think, blame has fallen *far* more justly on us *than on them.* For cold tormented the uncovered children of earth, *when they were* without skins; but to be destitute of a purple garment, adorned with gold and cumbrous figures, causes no inconvenience to us, provided that we have, *instead of it*, a common dress that may defend *us against the weather.* The human race, accordingly, labour perpetually in vain and to no purpose, and consume their life in empty cares; evidently because they do not know what is the *proper* limit to acquisition, and how far real pleasure extends: and this *ignorance*

[1] Wakeful *in nocturnal orgies*, have received and maintain the same *practices.*] Ver. 1407. *Unde etiam vigiles nunc hæc accepta tuentur.* In these words, as in those immediately preceding, where Lucretius speaks of "compensations for want of sleep," I have followed Wakefield's opinion of the sense. Lambinus and Creech thought that men unable to sleep from care or disease were intended.

[2] The discovery to have excited such envy.] Ver. 1418. *Invidia tali repertam.*

has gradually carried them into a sea *of evils*, and thoroughly aroused the mighty tumults of war.

But the wakeful *and untiring* sun and moon, that illumine with their light the vast revolving region of the heaven, taught mankind that the seasons of the year proceed, and that *every* thing is carried on, by a certain law and in a certain order.

They afterwards passed their lives defended with strong fortresses, and the earth, divided and marked out, was cultivated *and peopled.*

The sea was next covered with ships for the sake of perfumes.[1] *Men* had auxiliaries and allies, with settled treaties. The poets now began to hand down great deeds in their poems; letters had only a short time before been discovered. Hence our age cannot trace what previously occurred, except so far as reason gives indications.

Ships, and the culture of land, walls of cities, laws, arms, roads, garments, and other things of this kind; *all* the blessings and all the delights of life; poems, pictures, and artfully-wrought statues, improving use,[2] and the experience of the active mind, proceeding step by step, taught *all mankind* gradually *to adopt.*

Thus time by degrees suggests every discovery, and skill evolves it into the regions of light *and celebrity.* Thus, in the *various* arts, we see that different *inventions* proceed from different minds, until they reach the highest point *of excellence.*

[1] For the sake of perfumes.] Ver. 1441. *Tum mare velivolis (navibus* sc.) *florebat propter odores.* This is the reading of Wakefield and his followers, as if trading voyages were made for nothing but perfumes. Lambinus, and his clients, read *Tum mare velivolum florebat navibu' pandis.* Lachmann corrects, from conjecture, *Tum mare velivolis florebat puppibus, et res, &c.*

[2] Improving use.] Ver. 1450. *Politus usus.* "*Polibus usus* is that which either has polish or produces it." *Wakefield.*

BOOK VI.

ARGUMENT.

LUCRETIUS commences with a panegyric on Athens, as the inventress and promoter of useful and elegant arts, and especially as the birth-place of Epicurus, whom he again extols, ver. 1—42. He then proceeds to treat of meteoric appearances in the heavens, and, lest men should be terrified at thunder, as proceeding from Jupiter, asserts that it arises entirely from natural causes, ver. 43—95. It is produced by the collision, or disruption, or corrasion of clouds, ver. 96—120; or from other causes, ver. 121—159. Lightning, he says, is fire forced out of clouds, either by their collision, or by the force of winds, ver. 160—218. Of the nature and origin of the thunderbolt, ver. 219—322. Of its swiftness, and that of lightning, and why storms are more prevalent at the equinoxes, ver. 323—378. Ridicule of those who attribute the origin and direction of storms to the gods, ver. 379—422. Of the *prester*, or water-spout, ver. 423—450. Of the production of clouds, ver. 451—494. Of rain, the rain-bow, and other natural phænomena, ver. 495—535. Of earthquakes, ver. 536—607. Of the sea, and why it grows no larger, ver. 608—639. Of the fires of Ætna, ver. 640—712. Of the Nile, and its exundations, ver. 713—738. Of the lake Avernus, and the neighbouring region, with remarks on other matters, ver. 739—840. Of the temperature of water in wells, and of certain remarkable springs, ver. 841—906. Of the magnet, and the causes why iron is attracted towards it, illustrated by many remarks on the nature and influence of atoms, and of different substances, one upon another, ver. 907—1088. Of the origin and cause of diseases, ver. 1089—1136; with a full description of the plague that depopulated Athens during the Peloponnesian war ver. 1137—1285.

In early days, Athens, of illustrious name, first communicated to suffering mortals the method of producing corn; *Athens*, also, *first* improved life, and established laws; *Athens*, moreover, first afforded sweet consolations of existence, when she gave birth to that *pre-eminent* MAN, endowed with such *mighty* genius, who once poured forth *instruction on* all *subjects* from his truth-speaking mouth; and whose fame, spread abroad of old on account of his discoveries, is raised, since his death, even to the skies.

For when he observed that almost all things, which necessity requires for subsistence, and by which *mankind* may render life free from care,[1] are already prepared *for them by nature, yet saw* that men *may* abound in wealth, *may be* crowned with honour and applause, and *may* have pride in the good fame of their children, but that, notwithstanding, there *may* be griefs in the heart of each at home, and each *may* disquiet life with unhappy querulousness of mind, he understood, at once, the cause which compels them to lament with *such* troublesome complaints; *he perceived* that the vessel itself was in fault, and that all good things which were collected and brought *into it* from abroad, were spoiled by its imperfection within; *he was convinced of this*, partly because he saw that it was unsound and perforated, so that it could never by any means be filled; *and* partly because he found that it contaminated with an offensive taste, as it were, all things that it had received within it. He therefore purged the minds of men with the words of truth, and set bounds to desire and fear; he explained what is the chief good at which we all aim, and showed the way, in a narrow track, by which we may in a straight course arrive at it. And *he taught* what evil prevails every where in human affairs, which flows and arises variously, either from casual accident, or from necessity, according as nature has appointed; and *he showed* from what portals each ought to be met,[2] and proved that mankind re-

[1] Render life free from care.] Ver. 11. *Vitam consistere tutam.* "*Consistere* is used in an extraordinary sense, for *constituere et reddere.*" Turneb. Advers. ii. 12, cited by Havercamp.

[2] From what portals each ought to be met.] Ver. 32. *Quibus è portis occurri quoique deceret.* "A metaphor from military affairs, in allusion to gates of cities or camps, from which a sally is made, or resistance offered, against the enemy." *Lambinus*

volve in their breasts, for the most part unnecessarily, the sorrowful tumults of care. For as children tremble,[1] and fear every thing in thick darkness, so we, in the light, fear sometimes things which are not more to be feared than those which children dread, and imagine about to happen, in the dark. This terror of the mind, therefore, it is not the rays of the sun, or the bright arrows of day, that must dispel, but the contemplation of nature and *the exercise of* reason. For which cause, I shall more *carefully* proceed to complete, with *some further* observations, the undertaking *which I have in hand.*

And since I have shown that the regions of the world are mortal, and that the heaven consists of substance generated *and perishable*, and that whatever things are produced, and must necessarily be produced, within it, are for the most part *necessarily* dissolved; attend now to what further remains to be said; since *his friends* once *more* exhort the charioteer to ascend *his* stately chariot,[2] testifying-by-their-applause, that *all things* which *before* were adverse to *his* course, are *now* altered through *their* gentle favour.

But the *phænomena* which men observe[3] to occur in the

[1] For as children tremble, *&c.*] Ver. 35. See ii. 55, iii. 87.

[2] Since — to ascend *his* stately chariot, *&c.*] Ver. 47.

> Quandoquidem semel insignem conscendere currum
> Vectorem exhortant plaudendo, ut obvia cursu
> Quæ fuerint, sint placato conversa favore.

This is a *locus vexatissimus*, in which Forbiger has been daring enough to depart from the text of Wakefield, and to offer conjectures of his own. "The meaning is evidently," says he, "I will proceed to sing of the nature of things, since I have once begun, and have, with the encouragement of my reader, so far proceeded successfully; the metaphor being taken from the chariot-races in the Circus Maximus." Lambinus and Creech have,

> Quandoquidem semel insignem conscendere currum
> Vincendi spes hortata est, atque obvia cursu
> Quæ fuerant, sunt placato conversa furore.

That is, "Since the hope of victory has once prompted me to mount my stately chariot, and *since all things* which had been opposed to my course, are now altered, *all* violence being allayed." But the variations in the manuscripts are such, that to tell whose conjecture approaches nearest to what Lucretius wrote, is impossible. Lachmann has another conjecture, which it is not worth while to transcribe.

[3] But the *phænomena* which men observe, *&c.*] Ver. 50. *Cetera,*

earth and the heavens, when, *as* often *happens*, they are perplexed with fearful thoughts, overawe their minds with a dread of the gods, and humble and depress them to the earth; for ignorance of *natural* causes obliges them to refer *all* things to the power of the divinities, and to resign the dominion *of the world to them; because* of these effects they can by no means see the origin, and *accordingly* suppose that they are produced by divine influence. For if *those* who have fairly understood that the gods pass a life free from care, nevertheless wonder, meanwhile, how things can severally be carried on, especially in those matters which are seen in the ethereal regions above *our* heads, they are carried back again to *their* old notions of religion, and set over themselves cruel tyrants whom they unhappily believe able to do all things; being *themselves* ignorant what can *and* what cannot be done; and by what means limited power, and a deeply fixed boundary, is *assigned* to every thing. On which account, through *their own* blind reasoning, they are led away more *and more* into error.

Such *fancies* unless you expel from your mind, and put far from you unworthy thoughts of the gods,[1] and *cease to harbour notions* inconsistent with their tranquillity, the sacred power of the divinities will often, *as* being offended by you,[2] obstruct your peace;[3] not that the supreme majesty of the deities can *really* be violated, so that it should seek, through anger, to inflict severe punishment; but because you yourself, *when*

quæ fieri in terris cœloque tuentur mortales. Creech interprets *cetera* by *reliqua;* I take it as a conjunction, the same as *cæterum.*

[1] Put far from you unworthy thoughts of the gods.] Ver. 68. *Longèque remittis dis indigna putare.* "Remittis τὸ putare." *Wakefield.*

[2] Sacred power of the divinities———offended by you.] Ver. 70. *Delibata per te—numina sancta.* Lambinus, after suggesting *delibrata* and *delimata,* says that he does not altogether disapprove of *delibata,* if it be considered as a metaphor from wine, *quod libando deminutum esse intelligitur.* Havercamp quotes from Turnebus, Adv. ii. 12, the expositions, *contaminata, diminuta, violata,* which I have adopted. Turnebus adduces from the Auctor ad Herenn. *Delibans insitam virtutem;* to which Havercamp adds from Corn. Nepos, (Dat. 6,) *ne —animi delibarentur militum,* where the common editions read *debilitarentur.*

[3] Will—obstruct your peace.] Ver. 71. *Tibi—oberunt.* "That is, will be before your eyes, and, as if threatening you, will exhibit terrible faces from the regions of heaven." *Wakefield.* Comp. i. 65.

you might be calm in tranquil peace, will suppose that *the gods* cherish vast floods of wrath against you; nor will you approach the temples of the deities with a heart at ease, nor be able to admit *into your mind*, with placid serenity of contemplation, those images which are borne from the sacred persons *of the gods*,[1] as indications of their divine beauty, into the breasts of mankind.

Hence you may conceive what sort of life would follow such *a belief*. And although many observations have been made by me, to the end that true wisdom may repel such a *life* far from us, many *more* still remain *to be added*, and to be recommended by smooth verse; and the nature of things above us,[2] and of the heaven, is to be understood. Tempests, and bright lightnings, are to be sung; their nature is to be told, and from what cause they pursue their course; lest, having foolishly divided the heaven into parts,[3] you should be anxious *as to the quarter* from which the flying flame may come, or to what region it may betake itself; *and tremble to think* how it penetrates through walled enclosures, and how, having exercised its power, it extricates itself from them. Of which phænomena *the multitude* can by no means see the causes, and think that they are accomplished by supernatural power.

Thou, O skilful muse Calliope, solace of men, and pleasure of gods, mark out my path for me, as I run to the white goal at the end of the course,[4] that, under thy guidance, I may attain a crown with distinguished applause.

In the first place, the blue skies are convulsed with thun-

[1] Images—from the sacred persons of the gods.] Ver. 76. *Corpore quæ sancto simulacra feruntur.* He here speaks of the gods, not as creatures of the imagination, but as having a certain existence.

[2] Nature of things above us.] Ver. 83. *Ratio superûm.* "*Supera* id est, *τὰ μετέωρα*, intelligendum esse puto." *Faber.* With whom Wakefield concurs.

[3] Having foolishly divided the heaven into parts.] Ver. 86. "This refers to the practice of the augurs and Etrurians, of which Cicero speaks in his second book *De Divinatione*, observing that the Etrurians divided the heaven into sixteen parts, *&c.*" *Lambinus.*

[4] To the white goal at the end of the course.] Ver. 92. *Præscripta ad candida callis.* "*Candida callis*, as *vera* and *ardua viaï*, *strata viarum*, and a hundred other similar phrases in Lucretius and other authors. Lambinus has aptly quoted Seneca, Epist. cviii., *hanc quam nunc in Circo cretam vocamus, calcem antiqui vocabant;* viz. because the goal was covered over with chalk or lime." *Wakefield.*

der, because the clouds in the air, as they fly along on high, when winds are opposed to each other, meet together *in collision.* For in a clear part of the sky no noise takes place. But the more densely the clouds are collected, in any quarter whatsoever, with so much louder a noise does the thunder frequently proceed from that quarter.

The clouds, too, *it is to be observed*, can neither be of so dense a substance as stones and wood are; nor again, of so subtle a consistence as flying mists and smoke are. For, in the one case, they would either fall, being brought down by *their own* dead weight, or, in the other, they would, like smoke, be unable to keep together, or to retain within them the cold snows and showers of hail.

Clouds also produce a sound,[1] *by certain motions*, athwart the regions of the open sky, as canvass, stretched over the large theatres, makes a noise when it is tossed about among the posts and beams. Sometimes *a cloud* is ruffled and torn in pieces by boisterous winds, and *then* imitates the rattling noise of paper; for that kind *of crackling* you may also observe in thunder. Or *it sounds* as when the winds shake with their blasts a hanging garment, or flying sheets of parchment, and rattle them in the air.

It sometimes happens, moreover, that clouds cannot so much come into collision front to front, as meet side to side, rubbing their masses slowly *against one another*, with various movements; whence that dry *kind of* sound, *which you may sometimes observe*, strikes upon the ear, and which is protracted for some time, until *the clouds* have escaped from the confined space.

Thus too, not unfrequently, all things around, convulsed with violent thunder, seem to tremble, and the mighty walls of the capacious world *appear* at once to have started and burst asunder; *and this happens* when a collected body of strong wind has suddenly involved itself within a cloud, and, being shut up there, forces the cloud, (as the whirling air

[1] *Clouds* also produce a sound, *&c.*] Ver. 108. *Dant etiam sonitum*, &c. Lucretius, and those of his school, had certainly extravagant notions respecting clouds. In this passage he expresses his opinion that a cloud may make a noise like canvass flapping or splitting, and, a little below, (ver. 150, *seq.*,) says that a cloud may be burned up, and produce a crackling, like leaves of laurel. Yet he seems in general to have thought that clouds were mists: see ver. 495, *seq.*

stretches it more and more in all directions,) to become hollow, *but* with a thick crust round the cavity. Afterwards, when the strong force and spirit of the wind *within* has fermented, it at length, being emitted *from confinement*, gives a crack, with a frightfully-crashing sound. Nor is this surprising, when a small bladder, filled with air, often produces, if suddenly burst, a *loud* sound of a similar kind.

There is also *another* reason why the winds, when they blow among the clouds, may produce a sound; for we often see branched and rough clouds carried about *in the air* in various directions. So that such a noise may arise in the clouds as when the north-west gales blow through a thick wood, and the leaves make a rustling and the boughs crackle.

It happens, likewise, at times, that the vehement force of a strong blast tears a cloud asunder, cleaving it through with a straight-forward assault. For what the wind may effect in the sky, manifest experience demonstrates on the earth, where, though it is less violent, it often overthrows and tears up lofty woods from their lowest roots.

There are also waves in the clouds, which, breaking heavily, make a murmuring noise; such as is likewise excited in deep rivers, and in the vast sea, when it is broken *and rages* with the tide.

It occurs, moreover, *that* when the burning violence of lightning passes from one cloud into another, the second *cloud*, if it receives the fire into a large body of moisture, immediately extinguishes it with a loud noise; as hot iron, *taken* from a glowing furnace, hisses when we plunge it into the cold water *standing* near.

Further, if a cloud, *which is* more dry *than ordinary*, receives the lightning, *it is* at once set on fire, *and* scorched up with a loud sound; *such* as *is heard* if a flame, *on any occasion*, spreads over hills covered with laurel, burning it up with great fury, *and impelled* by a storm of wind. Nor does any substance burn with a more startling sound, as the flame crackles *among its boughs*, than the Delphic laurel of Phœbus.

In addition, *we may observe that* a great crashing of ice, and fall of hail, among the vast clouds in the sky, frequently produce a *loud* sound. For masses of cloud, closely condensed, and mixed with hail, are, when the wind compresses them, *shattered and* broken to pieces.

It lightens, also, when the clouds, by their collision, have struck out numerous atoms of fire; just as if a stone strikes *another* stone, or a piece of iron; for then, in like manner, a light bursts forth, and scatters abroad bright sparks of fire.

But it *always* happens that we hear *the sound of* the thunder *some time* after we perceive it lighten,[1] because objects, *which affect the hearing*, always come more slowly to the ears, than *those*, which affect the sight, *arrive at the eye*. This you may easily understand from the following instance. If you observe a man at a distance cutting down the trunk of a tree with an axe, you will see the stroke *itself* before *the noise of* the stroke makes any sound in the air. So, too, we see the lightning before we hear the thunder, which, however, is emitted at the same time with the flash, and produced from the same collision *of the clouds*.

Clouds, likewise, *sometimes* tinge the parts *around* with swiftly-diffused light, and the storm gleams with tremulous ardour, from the following cause: when wind has penetrated a cloud, and, rolling about within it, has made the cloud (as I showed above) *become* hollow *in the middle, and* condensed *round about*, it acquires heat by its own activity, as you see all *bodies* glow when made warm by motion; and a ball of lead, from being whirled[2] through a long space, even melts. This hot *wind*, accordingly, when it has burst a dark cloud, suddenly scatters atoms of heat, which are, as it were, driven out by *its* violence, *and* which cause the vibrating gleams of the lightning. Then follows the noise, which affects the ear more slowly than *the beams* which come to our eyes[3] *strike*

[1] But—we hear *the sound of* the thunder *some time* after we perceive it lighten, &c.] Ver. 164. "The flash of lightning succeeds the noise of the thunder, but is perceived before it, because the sense of seeing is quicker than that of hearing." *Aristotle*, Meteor. b. ii. "The true reason is, that the appearances of visible objects are always ready for the sense; but with sounds it is otherwise; for unless bodies are struck or dashed together no sound is produced." *Faber*.

[2] From being whirled.] Ver. 179. *Glans etiam longo cursu volvunda liquescit.* "Volvunda, volubilis, vel dum volvitur." *Lambinus*.

[3] *Beams* which come to our eyes.] Ver. 184. *Quæ perveniunt oculorum ad limina nostra.* The *limina* is Wakefield's, and Lachmann calls him *ineptiarum amator* for adopting it. All other editions, except Forbiger's and Eichstadt's, have *lumina*. *Oculorum lumina* occurs iv. 826, 837; vi. 1180. Lambinus read *quæ perveniunt oculos ad lumina nostros*, i. e. "lumina quæ ad nostros oculos perveniunt." But *oculorum lumina* is much to be preferred.

them. This, you will understand, takes place when the clouds are condensed, and when they are piled, at the same time, high above one another, with extraordinary effect.[1]

And do not be misled by the *circumstance*, that we, from below, see more *plainly* how broad *the clouds* are, than how high they are built up. For observe *their appearance*, when the winds will carry *these* clouds, resembling *great* mountains, along through the air; or when you shall see, on the sides of high hills, some clouds piled upon others, and those placed in the upper region, while the winds are buried *in repose*, pressing down those in the lower; and you will then be able to comprehend their vastness of bulk, and observe the caverns *within them*, which are formed as it were of hanging rocks; and when the winds, at the rising of a tempest, have filled them, *the winds themselves*, being thus confined within the clouds, complain with a loud murmuring, and utter threats like wild beasts in dens. Sometimes they send their roarings in one direction, and sometimes in another, through the clouds, and, seeking an outlet, turn themselves about, and roll together atoms of fire from the cloudy-masses; and thus they collect many *igneous* particles, and whirl about the flames within *as* in hollow furnaces, until, the cloud having burst, they dart forth with a flash.

From this cause, also, it happens, that that gleaming golden colour of liquid fire flies down upon the earth; inasmuch as the clouds themselves must of necessity contain many atoms of fire; as, when they are without any moisture, their colour is generally fiery and shining. For they must receive many *igneous particles* from the light of the sun, so that they naturally look red, and send forth fire. When, therefore, the wind, driving *them* along, has thrust, compressed, and condensed them into one place, they pour forth the atoms *of fire*, which are squeezed out, and which cause the colour of flame to shine *through the sky.*

It likewise lightens when the clouds in heaven are rarefied. For when the wind gently divides and attenuates them as they pass, those atoms, which cause the lightning, must fall even in spite of them; *and* then it lightens without any great terror, or sounds, or commotion.

[1] With extraordinary effect.] Ver. 186. *Impete miro.* "That is, *mirâ celeritate*, or *miro impetu.*" *Lambinus.* Creech would read *agmine*

Of what nature, moreover,[1] the lightning consists, its strokes, and the signs and marks *which are* burnt into *objects* by its fire, and which exhale a strong scent of sulphur, sufficiently indicate. For these are tokens of fire, and not of wind or rain.

Besides, *lightnings* often set on fire the roofs of houses, and revel with a swift flame throughout houses themselves. *For* nature has formed this attenuated fire, you may be sure,[2] of the *most* minute particles of flame, and with *the subtlest* motions and atoms, *so that* nothing whatever can resist it. Powerful lightning, indeed, passes through the walls of houses like sounds and voices; it passes through stones and brass, and melts brass and gold in a moment. It causes wine, also, to flow out suddenly from vessels *which still remain* entire; because, as is evident, its heat, at its contact, easily relaxes and expands all the earthen-substance of the vessel;[3] *so* that, penetrating into *the liquid* itself, it actively separates and dispels the atoms of the wine; agitating it with its flashing heat to a degree which the warmth of the sun seems unable to produce in an age; so much more active and forcible is this influence *of lightning*.

How these lightnings are generated, and become *possessed* of such force, that they can split towers with a stroke, overturn houses, tear away beams and planks, demolish and scatter abroad the monuments of heroes, deprive men of life, destroy

[1] Moreover.] Ver. 219. *Quod superest.* "Proinde." *Creech.*

[2] *For* nature has formed this attenuated fire, you may be sure, *&c.*] Ver. 225.

> Hunc tibi subtilem cum primis ignibus ignem
> Constituit natura minutis motibus atque
> Corporibus—

which must be construed, apparently, thus: *Hunc subtilem ignem natura constituit (ex) ignibus cum-primis minutis, minutis* being understood also with *motibus* and *corporibus*. But the reading is, in truth, absurd. Lambinus edited *mobilibusque corporibus*, which Lachmann has had the good sense to replace.

[3] All the earthen-substance of the vessel.] Ver. 232. *Omnia—lateramina vasi.* Wakefield takes *lateramina* for *latera*, sides. But what analogy shall be found to support him? Scheller, in his Lexicon, says that *lateramen* is "probably from an obsolete verb, *latero, -are*, from *later*, i. e. *facere ex lateribus*," and so may signify "*any thing made of tiles;* lateramina vasis, Lucret. vi. 232, probably *earthenware.*" Forbiger justly observes that it is a *ἅπαξ λεγόμενον.*

whole herds of cattle at once; and with what power they can effect all other things of this kind, I will now *proceed to* explain, nor will I delay you longer with promises.[1]

It must be admitted that lightnings are produced from clouds *that are* dense, and piled high *in the air;* for none are ever emitted from a clear sky, or from clouds that are *but* thinly collected. For doubtless manifest observation shows this to be the case; because, at the time *when thunder is heard*, the clouds are condensed from all sides through the whole atmosphere, so that we might suppose all the darkness to have left Acheron, and to have filled the immense vault of heaven; so *formidably*, when the dire gloom of storms has collected, *and* when the tempest begins to forge *its* thunderbolts, does the face of black terror *impend over the earth* from above.

Over the sea, too, very frequently, a black stormy cloud, like a flood of pitch flowing down from heaven, so *terribly* descends upon the waters, and rolls onward in *such thick* darkness, and draws with it a black tempest *so* pregnant with thunder and hurricanes, (being charged,too, to the utmost with fire and wind,) that even *men* upon land shudder and seek shelter in their houses. Thus, therefore, we must believe that tempestuous-clouds rise high above our heads; for neither could clouds overwhelm the earth with such thick darkness, (the sun being wholly obscured,) unless they were built up, numbers upon numbers, to a *great* height; nor could they, when descending *in rain*, deluge *the earth* with such vast showers, as to make the rivers overflow, and the plains a sheet of water, unless the atmosphere contained clouds ranged high over one another.

In the air, therefore, *at the time of storms*, all parts *of the clouds* are replete with wind and fire; and thus thunders and lightnings are produced. For I have shown above that the hollow clouds must contain many atoms of heat; and they must also of necessity receive many from the rays and warmth of the sun.[2] Thus, when the same wind, which has collected *the clouds* by chance into any one place, has elicited *from them*

[1] Delay you longer with promises.] Ver. 245. *Neque te in promissis plura morabor.* He has already said so much, that there appears to be no cause for this observation.

[2] Rays and warmth of the sun.] Ver. 273. *Ex solis radiis ardoreque eorum.*

many atoms of heat, and with that heat has mingled itself, the vortex *of wind*, compressed within the cloud, whirls itself about in it, and sharpens the lightning, *as* in a hot furnace, within its depths. For *this wind* is heated in two ways; it both grows warm by its own motion, and by the contact of fire. Then, when the substance of the wind has grown hot of itself, or the strong influence of fire has excited it, the lightning, *being* ripe as it were, bursts suddenly through the cloud, and the fiery gleam is roused and driven forth,[1] illumining all places with vibrating light; *close upon* which follows the awful crash[2] *of thunder*, so that the regions of heaven above seem suddenly to be disruptured, and to totter. Tremor then violently pervades the earth, and murmurs run along the lofty skies; for almost all the stormy air then trembles with the shock, and loud noises are sent forth; after which concussion follows heavy and abundant rain, *so* that the whole sky seems to be turned into showers, and thus, falling precipitately, to excite *the waters* to a *new* deluge.[3] So mighty a sound issues forth from the displosion of a cloud, and from a tempest of wind, when *the lightning* flies abroad with its burning impetus.

Sometimes, too,[4] the vehement force of the wind falls upon a dense cloud externally, *striking* on its summit just ripe *for explosion;*[5] and, when it has burst through it, there flies out instantly the fiery vortex[6] which we, in our native language,

[1] Is roused and driven forth.] Ver. 283, 4. Fertur—percitus.

[2] *Close upon* which follows the awful crash, *&c.*] Ver. 285. *Quem gravis insequitur sonitus, &c.*

> Follows the loosen'd aggravated roar,
> Enlarging, deep'ning, mingling; peal on peal
> Crush'd horrible; convulsing heaven and earth. *Thomson.*

[3] To excite *the waters* to a *new* deluge.] Ver. 292. *Ad diluviem revocare.* "To call together anew, as it were, the whole body of rain, in order to spread a second deluge over the earth." *Wakefield.*

[4] Sometimes, too, *&c.*] Ver. 295. *Est etiam, quom.* "*Est quum* is *est quando*, as in Greek ἔστιν ὅτε, equivalent to *aliquando* and *interdum.*" *Lambinus.*

[5] On its summit just ripe *for explosion.*] Ver. 296. *Maturo à culmine.* This is Wakefield's reading, and is rendered according to his interpretation. Lambinus, whom Lachmann follows, reads *maturo fulmine*, i. e. the lightning being ripe for eruption.

[6] Fiery vortex.] Ver. 297. *Igneus—Vortex.* "He very properly adds *igneus*, for if it were a *vortex* without fire, bursting from a disruptured cloud, it would not be *fulmen*, but what in Greek is called

call lightning. *And* this *is not confined to one point only, but* extends to other parts, wheresoever the force *of the wind* has diffused *itself.*

It happens at times, also, that a furious wind, though issuing forth without fire, yet ignites as it goes, in a long space, and *protracted* flight; losing, *too,* in its course, some of those larger atoms which cannot penetrate through the air equally *with the smaller;* and collecting from the air itself, as it flies *through it,* some of those minute particles which, when mixed, generate fire; almost in the same manner as a ball of lead very frequently grows hot in its course, when, throwing off many atoms of cold, it conceives heat in the atmosphere.

It occurs, moreover, that the force of a mere stroke excites fire *in a cloud,* when a cold blast of wind, darting forth without *any* fire *at all,* has struck *upon it;* because, as is evident, when *the wind* has dashed against *the cloud* with a violent impetus, atoms of heat may flow *both* from *the wind* itself, and also from that *cloudy* substance which then receives *its* impact; just as fire flies out when we strike a stone with iron; nor, because the substance of iron is cold, do those particles of igneous brightness the less, on that account, flow together at the stroke. Thus *any* substance, likewise, must *naturally* be kindled by lightning, if it be adapted and disposed to *take* fire. Nor can the substance of the wind be easily *supposed to be* altogether cold, *considering its rapid flight from the parts* whence it was so forcibly discharged from above;[1] for though it be not kindled by heat in its

τύφων, or ἐκνεφίας." *Lambinus.* By these words the Greeks meant *a hurricane,* or perhaps sometimes the wind that produces a waterspout. See Plin. N. H. ii. 48, 99. Sen. Nat. Quæst. v. 12. It is apparent therefore that Lucretius means a fiery wind or hurricane, but I have thought it better to retain *vortex* in the English.

[1] Whence it was so forcibly discharged from above.] Ver. 317.

Nec temere omnino planè vis frigida venti
Esse potest: ex quo tantâ vi missa superne est.

Lambinus explains *ex quo* by *ex quo tempore,* or *ex quo loco,* giving this turn to the passage: We can hardly suppose the wind itself to be quite cold when it strikes the cloud, if we reflect on the distance from which it came, and the rapidity of its descent.—Creech interprets, "cùm tanto impetu è nubibus emittitur," as if he thought that *ex quo* might be taken in the sense of *cùm* or *propterea quod* a sense which it will, perhaps, bear.

descent before it arrives *in these lower regions*, it yet comes *to them* tepid and mixed with warmth.

But the activity and impulse of the lightning are *so* great *as you observe them to be*, and the thunderbolts in general fly with *so* swift a descent, because the force of the wind, when roused, first collects itself fully within the clouds, and makes a great struggle to issue forth. Then, when the cloud can no longer restrain the increased-violence of its efforts, its fury bursts out, and flies, accordingly, with wonderful impetus, like *darts* which are hurled from powerful engines.

Add *to this*, that it consists of small and smooth particles; nor is it easy for any *body* to withstand so *subtle* a substance; for it winds and penetrates through the *most* minute passages. It is not, therefore, checked or delayed[1] by many obstacles, and it accordingly flies and spreads with *the most* active swiftness.

Consider, further, that all bodies universally tend downwards by nature; and *that*, when an impulse is added, the swiftness is doubled, and the force aggravated; *so* that whatever obstacles oppose *its power*, it *but* the sooner and more vigorously scatters *them* with a stroke, and pursues *its own* course.

Besides, that which comes *to the earth* with a long flight, must acquire speed; which continually increases[2] by progression, and augments its vehement impetus, and gives force to its stroke. For its velocity causes whatever atoms there are in the body, to be borne forward,[3] as it were, straight to one point, combining them all, as they roll on, in that *single* direction.

Perhaps *the lightning, too*, may, in its passage *through the sky*, attract to itself certain particles from the air, which may increase the violence of its strokes.

And it passes through substances *that remain* uninjured, and penetrates many *objects that continue* unaltered, because

[1] It is not, therefore, checked or delayed.] Ver. 333. *Non—in remorando hæsitat.*—Flies and spreads.] *Volat labens.* It is observable that Lucretius has here used *impetis* and *impete*, in the fifth foot, three times in eight verses.

[2] Continually increases.] Ver. 341. *Etiam atque etiam crescit.* "Semper intenditur." *Creech.*

[3] Forward.] Ver. 344. *E regione.* 'Directo." *Lambinus.*

the liquid fire finds a passage *into them* by the pores. And many *bodies* it rends asunder, when the atoms of the lightning strike against the atoms of *their* substances, where they are held in *close* contexture.

It moreover easily dissolves brass, and melts gold in a moment, because its substance consists of infinitely small particles, and of atoms *that are* smooth, which easily penetrate *bodies*, and; when they have penetrated, suddenly dissolve all connexions, and loosen *all* bonds.

The vault of heaven,[1] studded with glittering stars, are the whole earth round about, are shaken with thunder in autumn, and when the flowery season of spring displays itself, more *than at other times*. For in winter heat is deficient; and in summer the winds fail, and the clouds are not of so dense a consistence. But when the seasons of the year are between the two, all the various causes of thunder then concur. For the intermediate-portion of the year[2] blends the cold and the heat, both of which are necessary to produce thunder for us; *so* that, *for the generation of it*, there may be a discord in things, and that the atmosphere, raging with heat and wind, may be agitated with a vast tumult. For the beginning of summer, and the end of winter, is the season of spring; from which cause *the two* dissimilar *natures, heat and cold*, must at that time jar with one another, and produce a commotion as they mingle. And the termination of summer comes on, meeting the commencement of winter; *at a time* which is called the season of autumn; *and* then, too, violent colds contend with *violent* heats. These *seasons* may, therefore, be styled the WAR-TIMES OF THE YEAR.[3] Nor is it wonderful if, at these conjunctures, much thunder-and-lightning takes place, and *if* tumultuous tempests are excited in the sky, since there arises disturbance from doubtful strife on

[1] The vault of heaven, *&c.*] Ver. 357. He now proceeds to explain why thunder and lightning are more frequent in spring an autumn than at other seasons.

[2] Intermediate-portion of the year.] Ver. 364. *Fretus ipse anni.* "By *fretus* (the same as *fretum*) *anni*, Lucretius signifies those parts of the year which are between the cold of winter and the heat of summer; using metaphorically a word which signifies a separation between two portions of the earth." *Lambinus.*

[3] War-times of the year.] Ver. 374. *Bella anni.*

either hand; heat *contending* on the one side, and winds, mingled with rain, on the other.

This is *the way* to learn the true nature of igneous lightning, and to understand by what power it produces every effect; not to seek for indications of the hidden mind of the gods, *by* turning over, with futile research, the verses of Etruria,[1] *superstitiously observing* whence the fleeting fire has come, or to which quarter it has turned itself; how it has penetrated through walled apartments, and how, having exercised its power, it has extricated itself from them; or what injury the stroke of a bolt from heaven can inflict.

But if Jupiter, and the other gods, shake the shining regions of heaven with terrific thunder, and hurl the lightning whithersoever each has thought fit, why do they not take *special* care that those, who are guilty of reckless *and* detestable wickedness,[2] may, being struck, inhale the flames of lightning into their pierced breasts, as a bitter warning to mortals? And *why* rather is he, who is conscious to himself of no one disgraceful act, involved and overwhelmed, innocent *as he is*, with flames, *and* carried off suddenly with a whirlwind and fire from heaven?

Why, also, *if the gods hurl thunderbolts at men*, do they *ever* seek solitary places, and labour in vain? Or do they then exercise their arms, and strengthen their elbows?[3] And why, *it may be asked*, do they suffer the weapon of father *Jupiter* to be blunted against the earth? Or why does he himself suffer it, and not save it for his enemies?

Furthermore, why does Jupiter never hurl his bolts over

[1] Verses of Etruria.] Ver. 381. *Tyrrhena carmina.* The Etruscans were famous for auguries and divinations, which are said to have been taught them by a man named Tages, who sprung up among them from the earth. See Cic. de Div. lib. ii., and Ovid Met. xv. 558. The rules and precepts of their art were written in verse.

[2] Reckless *and* detestable wickedness.] Ver. 390. *Incautum scelus aversabile. Incautum scelus* is wickedness from which men have taken no care to abstain, but which they have committed in defiance of consequences or of the opinion of others.

[3] Exercise their arms, and strengthen their elbows.] Ver. 396. *Brachia consuescunt, firmantque lacertos. Brachium* was properly the arm from the wrist to the elbow; *lacertus* was the part from the elbow to the shoulder. We have no words to distinguish the two parts.

the earth, and scatter abroad thunder, from a clear sky? Does he *wait till storms threaten, and,* when the clouds have spread over *the heaven,* come down into their vortex,[1] that he may hence aim the strokes of his weapon *from a* nearer *point?* For what reason, moreover, does he hurl *his bolts* into the sea? Of what does he accuse the waves, and the watery flood, and the liquid plains?

Besides, if he wishes us to guard against the blow of the thunder-bolt, why does he hesitate to contrive *means* that we may see it when it is hurled? But if he desires to overwhelm us with his lightning unawares, why does he thunder in the quarter *from which he aims, so* that we may avoid it? Why does he first excite darkness, and noises, and murmurings *in the air?*

And how can you believe that he hurls *his bolts* in various directions at the same time?[2] Or would you venture to say it never occurs that many strokes take effect at the same time? But it has often occurred, and must often occur, that as, *in a storm,* rains and showers fall on many places *at once,* so many thunder-strokes are discharged *on the earth* at the same moment.

Moreover, why does he shatter the sacred temples[3] of the *other* gods, and his own stately abodes, with *his* destructive lightning? And *why* does he break in pieces the well-wrought statues of the divinities, and rob his own images of honour by violent disfigurement? And why does he generally aim at high places? *at which it is evident that he does aim,* inasmuch as we see most traces of his fire, *and see them* more *distinctly,* upon the loftiest mountains.

Furthermore, it is easy to understand from these observations, how those *phænomena,* which the Greeks from *their* nature have called Πρηστῆρες,[4] sent *down* from above, descend into

[1] Come down into their vortex.] Ver. 402. *In æstum descendit. Æstus* is *tumult, surge.* But all editors, except Wakefield and his followers, read *ipse in eas tum,* sc. *nubes.*

[2] —hurls *his bolts* in various directions at the same time.] Ver. 411. "If you say that Jupiter hurls thunderbolts, you will either affirm or deny that he hurls them in several places at the same time. If you affirm it, how will you make it credible? If you deny it, experience will refute you." *Lambinus.*

[3] Shatter the sacred temples.] Ver. 416. Compare ii. 1101, *seq.*

[4] Πρηστῆρες.] Ver. 424. By πρηστὴρ (from πρήθω. to burn) Lu-

the sea. For it sometimes happens that they drop, like a column let down, from the sky into the ocean; around which *column* the waters boil, being excited by violent blasts of wind; and whatever vessels are then caught in that vortex, *are* tossed about, *and* incur the greatest danger. This occurs, when (*as is* at times *the case*) the impetuous force of the wind is not able to burst a cloud of which it has taken possession, but bears it down, so that it becomes, by degrees, like a pillar reaching from the heaven into the sea; as if something were thrust down from above with a hand, and the force of an arm, and stretched into the waters. Hence, when the fury of the wind has burst the cloud, it rushes forth into the sea, and excites an extraordinary agitation among the waves. For *the blast* descends *as* a rolling whirlwind, and brings down with it the cloud, *which is* of a yielding substance, *and not easy to be disruptured;* and when it has once thrust the heavy *body of the cloud* into the water of the ocean, it suddenly plunges itself wholly into the waves, and disturbs all the sea with a mighty noise, forcing it to boil *with agitation.*

It happens also, *at times*, that a vortex of wind[1] involves itself in clouds, gathering up cloudy atoms from the air, and imitates as it were a PRESTER sent down from heaven. When this *vortex* has descended to the earth, and has burst, it vomits forth, and tempests *abroad*,[2] the impetuous fury of a whirlwind. But such *a vortex*, because it is formed but seldom,

cretius means a hot or fiery wind, involved in a cloud, which it depressed towards the earth. If, in its descent, it alighted on the sea, it produced what we call a water-spout; if it came down on the land, it was a whirlwind. This was the doctrine of Epicurus: see Diog. Laert. x. 104. The πρηστὴρ might, however, burst from the cloud, and scorch or burn any object. Thus, in Xen. Hell. i. 3, 1, it is said that the temple of Minerva in Phocæa was burned, πρηστῆρος ἐμπεσόντος, i. e. *having been*, as we should say, *struck by lightning*. See Plin. N. H. ii. 48: Quod si majore depressæ nubis eruperit specu—*turbinem* vocant, proxima quæque prosternentem:—*idem ardentior accensusque dum furit prester vocatur*, amburens contacta pariter et proterens. See also Sen. Nat. Quæst. v. 13.

[1] It happens also, *at times*, that a vortex of wind, &c.] Ver. 443. In this paragraph Lucretius speaks of wind in a cloud which imitates or resembles a *prester*, but which is not fiery.

[2] Tempests *abroad*.] Ver. 447. *Procellat.*

Part huge of bulk,
Wallowing unwieldy, enormous in their gait,
Tempest the ocean. *Milton*, P. L. vii. 410.

and *because* the hills must obstruct *its progress* on the land, appears more commonly in the wide prospect and open atmosphere over the sea.

Clouds are formed, when many atoms of a rough *and hooked* nature, flying in the *higher* region of the heaven above *us*, have suddenly come together *and combined;* atoms which, *though* attached *only* in a slight degree, may yet be held united in a body. These first cause small clouds to gather; those *small clouds* then unite[1] and are combined with one another, and, as they join, swell and are carried along by the winds with such *violence*, that at length a raging tempest arises.[2]

It occurs, too, that the nearer to any *part of the* sky the elevated summits of hills are, so much the more constantly do they smoke, *as it were*, with the thick mist of a yellow cloud;[3] because, when the clouds first gather, *and* before the eye can discern *their* thin *substance*, the winds, carrying *them* off, collect *them* on the highest tops of the hills. Here at last it happens, that, when a larger collection is formed, *one* dense and solid cloud seems both to show itself and to rise at the same time from the summit of the hills into the clear sky. For the nature *of the ground* itself, and our own perceptions as we climb high mountains, demonstrate that breezy eminences[4] are open *to the ascent of exhalations.*

Besides, that nature raises many atoms of vapour from the whole *surface of the* ocean, garments suspended upon the shore testify; inasmuch as they contract and retain moisture.[5] To augment the clouds, therefore, many atoms seem likely to arise from the motion of the salt water; for the nature *and action* of all waters is similar.

[1] Those *small clouds* then unite.] Ver. 456. *Inde ea comprendunt inter se. Ea*, sc. parva *nubila*.

[2] With such *violence*, that at length a raging tempest arises.] Ver. 458. *Usque adeo donec tempestas sæva coorta est.*

[3] Thick mist of a yellow cloud.] Ver. 461. *Fulvæ nubis caligine crassâ.* Thomson borrows this expression:

> A yellow mist
> Far smoking o'er th' interminable plain. Spring, 193.

[4] Breezy eminences.] Ver. 468. *Loca sursum ventosa.*

[5] Contract and retain moisture.] Ver. 472. *Concipiunt humoris adhæsum*, conceive an adhesion of moisture.—Motion of the salt water.] Ver. 474. *Salso momine ponti.*

Moreover, we observe mists and vapours arise from all rivers, and from the earth itself also, which, exhaled from it like a breath, are in the same manner carried upwards, and cover the sky with obscurity, and, uniting together by degrees, form clouds high *in the air*. For the influence[1] of the starry heaven above, too, keeps down *the vapours*, and, condensing *them*, weaves the blue sky over, as it were, with clouds.

It is possible, likewise, that to this assemblage *of clouds*[2] may come seminal-atoms from without *the heaven*, which may *assist to* form mists and flying storms. For I have shown that the number *of primordial-atoms* is countless, and that the extent of the depth *of space* is infinite;[3] and I have demonstrated, too, with how great celerity seminal-particles fly, and how instantaneously they have power to pass through an inexpressible distance.[4] It is not, therefore, wonderful if storms and darkness, diffused from above,[5] cover, in a short time, such vast mountains, *as well as* the *whole* sea and land; since on every side, exits and entrances are allowed to the elemental atoms, through all the passages of the air, and, as it were, through *all* the breathing-places of the vast universe around.

Attend now, and I will explain how rain[6] collects in the clouds above, and how the showers *are* precipitated *and* de-

[1] Influence.] Ver. 481. *Æstus.* "By *ætheris æstus* understand those atoms which, continually proceeding from the heaven, compress the thin clouds, by impacts upon them, into showers." *Creech.* See the next paragraph.

[2] To this assemblage *of clouds.*] Ver. 483. *Hunc—in cœtum—illi.* "Illi, *scil.* vortici, *vel* nubi." *Forbiger.* Lambinus reads *illa*, agreeing with *corpora.*

[3] The extent of the depth *of space* is infinite.] Ver. 485. *Summamque profundi Esse infinitam.* See i. 957, *seq.* Of the swiftness of atoms, see ii. 141, *seq.*

[4] Inexpressible distance.] Ver. 488. *Immemorabile per spatium.* "Ανεκδιήγητον, inexplicabile, immensum." *Faber*, ad iv. 193, where the same word occurs.

[5] Diffused from above.] Ver. 491. *Impensa supernè.* "What is the exact signification of this word *impensa*, or whence it is formed, is to me not very clear. Lambinus refers it to *impendor;* but it appears to me that there is nothing common between these two words; and I should have little hesitation in assigning *impensa*, as well as *suspensa*, to the root *pando;* but in the silence of the old grammarians it becomes me to express my suspicions with modesty." *Wakefield.*

[6] Rain.] Ver. 485. *Pluvius humor.*

scend upon the earth. In the first place I shall observe,[1] that many atoms of moisture arise, together with the clouds themselves,[2] from all things *on the earth*, and that both these *substances*, the clouds and the water which is *contained* in the clouds, increase together, in the same manner as our body grows together with the blood *that is in it*, and as sweat and *other* moisture, which are *diffused* throughout the limbs, are augmented together with them. The clouds, too, when the wind drives them over the wide sea, frequently attract much moisture from the *salt* water, like fleeces of wool suspended *in the air*. In like manner moisture is raised from all rivers into the clouds; where, when numerous particles of water have in many ways collected, *and have been* augmented from every quarter, the swollen clouds strive for two reasons to discharge themselves; for the force of the wind presses *them;* and the mass of clouds itself, when a greater body *than ordinary* has united, urges and weighs *them down* from above, and makes the rain flow forth *upon the earth.*

Moreover, when the clouds are rarefied by the wind, or when they are dissolved by the influence of the sun's heat from above, they *forthwith* discharge rain; *their moisture* distilling as wax,[3] thoroughly melted, drops over a strong fire.

But violent rain takes place, when the clouds are vehemently urged by both forces; *being densely* heaped *upon* one another, and pressed by the impetuosity of the wind.

And rains are accustomed to last long, and to continue for a considerable period, when many particles of moisture flow together,[4] and *when there are* clouds on clouds[5] *heaped* one

[1] I shall observe.] Ver. 498. *Vincam.* This verb properly signifies, *I will demonstrate* or *prove;* but as he offers little or no proof on the point, I have thought fit to translate it by a lighter word.

[2] Arise, together with the clouds themselves.] Ver. 498. *Consurgere nubibus ipsis.* I have followed Creech in understanding *cum* or *unà cum.* That clouds do rise from the earth he has already remarked in ver. 476, *seq.*

[3] They—discharge rain—distilling as wax, *&c.*] Ver. 515. *Mittunt humorem pluvium; stillante quasi igni Cera——liquescat.* This is Wakefield's reading. With *stillante* you must understand, *si diis placet,* "..umore." But Lambinus, and all his followers, have *stillantque.*

[4] Flow together.] Ver. 520, 522. *Fluenter—feruntur.* But this is a most inconvenient and unsatisfactory construction. For *fluenter* Lambinus has *fuerunt,* and Lachmann *cierunt,* either of which makes very good sense.

[5] Clouds on clouds.] Ver. 521. *Nubes nimbique.*

over another, pouring down water from above, and from every part around; and when the whole earth, fuming *with vapour*, sends back moisture *into the air*.

Then, when the sun, in the midst of a dark storm, and when the rain descends opposite to him, has shone *upon the shower* with his rays, the hues of the rainbow appear upon the black clouds.

Other *matters*, which gather above *us*, and are produced above *us*, and all *bodies* (all *I say*, without exception)[1] which collect in the clouds, *as* snow, wind, hail, and cold frost, as well as the strong power of ice, the great hardener of the waters, and the restraint which every where delays the eager rivers; *all* these, *though numerous*, it is yet very easy to understand, and to comprehend how they are produced, and from what cause they arise, when you have thoroughly learned what *virtues and qualities* belong to the atoms *which constitute their substance.*

Give me now your attention *further*, *and* learn what is the cause of earthquakes.[2] And first, suppose the earth to be below, as it is above, filled in every part with airy caverns, and containing *also*, in its bosom, many lakes and many pools, as well as stones and fissured rocks; while you must likewise suppose that it rolls along forcibly, beneath the surface of the soil, many hidden rivers, floods, and submerged rocks; for nature herself requires that the earth be similar to itself throughout.

These points, then, being laid down and admitted, the earth quakes on the surface, *when it is* shaken by great falls *of substances* beneath, *as* when age brings down vast caverns; for *then* whole mountains sink, and, from the violent shock, tremblings spread far and wide in a moment; *an effect which we may* naturally *imagine;* since whole houses totter by the side of a road, when shaken with waggons, though of no great weight; nor are edifices less agitated[3] when the stout drivers

[1] All bodies, (all, *I say*, without exception.)] Ver. 528. *Omnia, prorsum Omnia.*

[2] Earthquakes.] Ver. 535. The opinions which he gives respecting earthquakes are those of Epicurus, as well as of Democritus and Anaxagoras. See Lambinus and Faber.

[3] Nor are edifices less agitated, *&c.*] Ver. 550. *Nec minus exsultant ædes, ubiquomque equitum vis*, &c. The word *ædes* is not wanted, as *tecta* precedes. It was an intrusion of Wakefield's, from conjecture.

of chariots hurry along *the street* the iron rounds of the wheels.

It happens, also, that when a large mass of earth[1] rolls down, from the effects of time, into a wide and deep pool of water, the water is agitated, and the earth, too, trembles with the concussion of the flood; as a vessel *of liquid* cannot stand still upon the ground, unless the liquid, *after being shaken*, has ceased to sway with a rocking motion within *it*.

Moreover, when wind, collected in the hollow places under the earth, bears *strongly* from one quarter, and, struggling with vast power, crowds into the deep caverns, the earth, *towards the part* where the force of the blast directs itself, inclines *and gives way; and* then the buildings which are erected upon the earth's surface,[2] sloping *and* being driven *from the perpendicular*, lean in the same direction, and *so much the more* as they respectively rise higher into the air; while the beams, being stretched, stand out, *as* ready to start *from their places*. And do *men* hesitate to believe that a time of ruin and destruction awaits the *whole* fabric of the world, when they see so vast a mass of the earth give way? Whereas, *even now*, unless the winds were to remit *their fury*, no power could save *all* things,[3] or could hinder them from

Lambinus read, *Nec minus exultant ubi currus fortis equôm vis*, &c. The manuscripts vary, and are unintelligible. Lachmann re-constructs the line thus: *Nec minus exultant, et ubi lapi' cunque viai*. In the next line, *Ferratos utrinque rotarum succutit orbes*, I have omitted the second word in the translation.

[1] When a large mass of earth, *&c.*] Ver. 552. He signifies that earthquakes may take place from the fall of masses of rocky or other matter into bodies of water beneath the surface of the earth.

[2] Then the buildings which are erected upon the earth's surface, *&c.*] Ver. 561.

> Tum supra terram quæ sunt exstructa domorum,
> Ad cœlumque magis quanto sunt edita quæque,
> In clinata minent in eandem, prodita, partem;
> Protractæque trabes impendent, ire paratæ.

Exstructa domorum, the same as *strata viarum*, *prima virorum*, &c. *In clinata minent*, says Wakefield, is for *clinata imminent*. *Prodita*, he adds, is for *porro data*, or *projecta*, or προκείμενα. Comp. ver. 606. For *minent* Lachmann reads *meant*.

[3] No power could save *all* things, *&c.*] Ver. 568.

> *vis nulla refrænet*
> *Res, neque ab exitio possit reprehendere euntes.*

i. e. vis nulla refrænet res ab exitio, neque possit reprehendere (res) euntes (ad exitium). Lambinus reads.

going to destruction; but, because they relax and struggle by turns, and, as if collecting *their force*, return *to the charge*, and *then* retreat *as if* repulsed; the earth, on this account, oftener threatens ruin than actually suffers it;[1] for it inclines and starts back, *as it were*, *only for a time*, and *then*, making an effort with its *whole* weight, recovers its station.[2] From this cause, accordingly, all *our* houses *tremble and* reel; the highest more than the middling, the middling more than the lowest, the lowest scarcely at all.[3]

There is also this cause of great quaking of the earth *to be mentioned.* When wind, and any vast quantity of air, collected either without or within the earth, has suddenly thrown itself into hollow places under the ground, it there rages, at first,[4] with *violent* fury, among the vast caverns, and rolls and urges itself along; *but* at length, when its force is roused and excited, it bursts forth abroad, and, cleaving the deep soil, forms a huge *yawning* chasm; as happened in Syrian Sidon,[5] and

non ulla refrænet
Res, neque ab exitio possit reprehendere euntem.

i. e. non ulla res refrænet (terram) ab exitio, neque possit reprehendere (terram) euntem (ad exitium). The latter seems preferable; for the former draws the mind of the reader away from the earth, which is the immediate subject of the passage, to things in general. Wakefield justly observes, that Virgil probably had these lines in his thoughts, when he wrote,

Ni faciat, maria, ac terras, cœlumque profundum,
Quippe ferant rapidi secum verrantque per auras.
Æn. i. 55.

[1] The earth — oftener threatens ruin than actually suffers it.] Ver. 572. *Sæpius hanc ob rem minitatur terra ruinas Quam facit.* Earthquakes, and other disorders on the earth, do happen; but not so frequently as circumstances seem to threaten. This seems to be the sense of the passage. To refer it to any general destruction of the earth, when Lucretius no where hints that any has happened, seems to be absurd. Yet Good makes it,

Earth oftener far is menaced than destroy'd.

[2] And *then*, making an effort with its *whole* weight, recovers its station.] Ver. 574. *Et recipit prolapsa suas in pondere sedes.* "The order is, Et prolapsa in (i. e. ἐν, cum, διὰ) pondere, recipit suas sedes." *Wakefield.*

[3] Scarcely at all.] Ver. 576. *Perhilum.* "Paullum modo, fere nihil." *Faber.*

[4] Rages, at first.] Ver. 581. *Fremit ante.*

[5] Syrian Sidon.] Ver. 585. *Syriâ Sidone.* This was the old reading, which, after Lambinus had altered it into *Tyriâ Sidone*, Wake-

was *seen* at Ægium in the Peloponnesus;[1] which cities, such an eruption of air, and an earthquake produced *at the same time*, overthrew *and destroyed.* Many other cities, also, by reason of violent earthquakes, have sunk down to the ground; and many cities, with their inhabitants, have been overwhelmed in the sea.[2] But if the force of the air, and violent fury of the wind, do not burst through the soil, they yet spread, like shuddering *blasts*, through the numerous openings under ground, and thus cause a tremour *on the surface;* as cold, when it penetrates into our limbs, shakes *them*, and compels them to tremble and quiver against our will. Men, therefore, in cities, are appalled, *on such occasions*, with double terror; *for* they dread the buildings above *them;* and are afraid, *at the same time*, lest the earth should suddenly break up[3] the depths below, and lest, being disruptured *and* disordered, it should open wide its jaws, and prepare to fill them with its own ruins.

Though *men*, therefore, think that the heavens and the earth will be imperishable, *and are* intrusted to eternal safety,[4] yet, at times, the present influence of danger causes in some degree the sensation of fear; *a fear* lest the earth, suddenly withdrawn from beneath their feet, should sink down into a gulf; and *lest* the SUM OF THINGS, utterly overthrown, should follow *it*, and *only* a confused wreck of the world remain.

I must now proceed to give a reason why the sea knows

field recalled, observing that Pliny, N. H. xxxv. 51, has "terrâ in *Syriâ*, circa *Sidonem*, oppidum maritimum." "And," says Forbiger, "since geographers (as Strabo, xvi. p. 749, Cas.; Plin. N. H. v 13; Pomp. Mela, i. 11, 1) comprise under the name of Syria, in its wider sense, all the lands between Cilicia, Arabia, Egypt, and the Tigris, and, consequently, Phœnice, why might not Lucretius also have called *Sidon* a *Syrian* city?" Of this earthquake mention is made by Justin, xviii. 3; and by Strabo, i. p. 58.

[1] At Ægium in the Peloponnesus.] Ver. 585. *Ægi in Peloponneso.* Ægium was a town of Achaia, near which stood Helice and Bura, which were destroyed by an earthquake. See Ovid. Met. xv. 293, ibique Heins. and Burm.; also Pausanias, vii. 24; and Diod. Sic. xv. 48.

[2] Have been overwhelmed in the sea.] Ver. 589. *Per mare pessum Subsedêre.* "Pessum, deorsum, et quasi sub pedes." *Lambinus.*

[3] Lest the earth should suddenly break up.] Ver. 598. *Terrai ne dissolvat natura.* "Terrai natura *for* Terra ipsa." *Creech.*

[4] Intrusted to eternal safety.] Ver. 602. *Æternæ mandata saluti.*

no augmentation.[1] In the first place, *men* wonder that nature does not *necessarily* enlarge the ocean, into which there is so great a conflux of waters, and into which the rivers run from all quarters. *But* add *to the rivers, if you please*, the wandering showers and flying storms, which scatter and discharge themselves over all the sea and the earth; add, *if you please*, the sources of the rivers; yet all *these*, compared with the vastness of the sea, are but as one drop of water for the augmentation of the whole. It is no wonder, therefore, that the mighty ocean is not increased.

Besides, the sun, by the influence of his heat, draws a large portion away from *it*. For we observe how the sun dries, with his burning rays, garments that are drenched with moisture. But the ocean, we see, is large, and widely extended *beneath his beams; and* although, therefore, the sun may exhale *but* a small portion of moisture from each spot on the sea, it will yet deduct a large quantity from *its* waters throughout so great an extent *of surface.*

Moreover the winds,—the winds, *I say*, which sweep the ocean,—may carry off a considerable portion of its liquid; for we often see the roads, *after being drenched with rain*, dried in a single night, and a crust of mud, *which before was* soft, *hardened and* congealed *upon them.*

The clouds, too, I have before shown, take up a large quantity of moisture, *which is* attracted *by them* from the vast surface of the ocean; and which they sprinkle, in various parts, over the whole round of the earth, *at times* when rain falls on the ground, and *when* he winds drive the clouds *athwart the sky.*

Lastly, since the earth is of a porous consistence, and is in contact *with the sea*, encompassing the shores of the deep on

[1] Why the sea knows no augmentation.] Ver. 608. *Cur augmen nesciat æquor.* "To the question, why the sea, into which all rivers run, is not increased, Lucretius answers, 1. That the sea is so vast, that all the water of the rivers, together with all the rain that falls from the clouds, is but as a drop to the whole. 2. That the sun exhales much water from it. 3. That the winds carry away much. 4. That the clouds take away a portion. 5. That as the rivers run into the sea, so they pass out of the sea, by openings in the earth from the bed of the ocean, to their own sources; producing a circulation of water which makes it not at all wonderful that there is no increase in the sea." *Creech.*

all sides, the water, as it flows from the earth into the sea, must likewise pass, *reciprocally*, from the salt sea into the earth; for the salt is strained off, and the *pure* substance of the water flows back into the ground, and collects all together at the sources of rivers; from whence it returns, in fresh streams, over the earth, wherever a passage, once cut, has conveyed the flood in its liquid course.[1]

I shall now explain what is the cause that fires at times burst forth, with such tempestuous fury, from the jaws of Mount Ætna.[2] For *it was* not from any divine *origin of* calamity,[3] *that a* storm of fire, rising and raging over the fields of the Sicilians, attracted to itself the attention of the neighbouring nations, when, observing all the regions of heaven covered with smoke, *and* gleaming *with flames*, they felt their breasts filled with awful anxiety, *dreading* what new catastrophe nature might design to produce.

In *contemplating such* subjects *as* these, you must stretch your view widely and deeply, and look far abroad in all directions, that you may remind yourself that the SUM OF THINGS is vast, and reflect how very small, how infinitely small a part[4]

[1] Has conveyed the flood in its liquid course.] Ver. 639. *Quà via secta semel liquido pede detulit nudas.* See ver. 270.

[2] Fires—burst forth——from the jaws of Mount Ætna.] Ver. 640. "He now proceeds to treat of other remarkable phænomena, which might, in the opinion of some, support the notion of the world being governed by the providence of the gods. And first, he speaks of the fire of Ætna, at which, though it lays waste a large portion of Sicily, we ought not inconsiderately to wonder, as being beyond the powers of nature. Some may think it supernatural, because it is vast, but they think it vast, only because they have not seen a greater; nor ought we to wonder at the vastness of any thing, when we compare it with the immensity of the universe; which would supply atoms for a conflagration that would far exceed those of Ætna. Eruptions of this kind are like diseases in the human frame; and as the seeds of disease may come into the human body from the world in which we live, so they may come into the world from the universe; for if you make a comparison, you may say that as *man* is to *this world*, so is *this world* to the universe." From *Creech.*

[3] From any divine *origin of* calamity.] Ver. 642. *Neque enim diâ de clade coorta, &c. Diù de clade* is the conjecture of Faber, which Havercamp and Forbiger adopted. Wakefield reads, from a conjecture of Isaac Vossius, *mediocri* clade; and Lachmann follows him. I certainly prefer *diâ.*

[4] How infinitely small a part.] Ver. 652. *Quàm multesima.* Lambinus compares the expression *multesima pars* with the Greek πολ-

of the whole universe, is this one heaven; not even so considerable a part as one man is of the whole earth. This *point* if you fully consider, and fully understand, *when it is* fairly presented *to your mind*, you may forbear to wonder at many things *which now excite your admiration.*

For, *in respect to our own bodies*, which of us is surprised if any *of his neighbours* has contracted a fever, that spreads through his frame with a burning heat, or has felt any other painful disease in his limbs? Since the foot often swells on a sudden; a sharp pang frequently seizes the teeth, *or* darts through the eyes; erysipelas arises, and, creeping through the frame, burns whatever part it has attacked, and spreads itself over the limbs. Nor *is it* strange *that such maladies should occur;* for there are atoms *ready to produce* many effects; and this earth and air contain *seeds* enough of noxious disease, from which an abundance of infinite disorder may have its growth. Thus, too, we must suppose that, *as to our own bodies, so* to the whole heaven and earth, are plentifully supplied all *kinds of atoms* from the immensity *of matter*, by *the effects of* which the earth, being suddenly moved, may quake *with agitation*, while a rapid hurricane *may* rush over sea and land, the fire of Ætna *may* swell forth, and the heaven be in a blaze; for even this happens, even the celestial regions glow with heat. *Thus*, too, storms of rain arise with a greater combination-of-force, when particles of moisture have in like manner chanced to unite themselves.

"But the raging fire *of Ætna*," *you will say*, "is extraordinarily great." Doubtless, *I answer;* and a river, which has been seen *by any person*, appears extraordinarily great to him who has never before seen a greater; and a man or a tree *possibly* appears large *to the eyes of some animals;* and every one imagines every thing of every sort, which is the greatest that he has seen, *to be extremely* large; although all things *that he beholds*, together with the heaven and the earth and the ocean, are *as* nothing *in comparison* with the ENTIRE SUM OF THE ENTIRE WHOLE.[1]

I will now, however, explain by what causes the fire of

λοστὸν μέρος, which he observes that Strabo (lib. i. p. 26, ed. Cas.) uses in the sense of *perexigua tantum pars.*

[1] ENTIRE SUM OF THE ENTIRE WHOLE.] Ver. 680. *Summam summai totius omnem.*

Ætna, when suddenly excited, bursts forth from its vast furnaces. In the first place, the fabric of the mountain is hollow underneath, supported, for the most part, by arches of flint-stone. In all the caverns, moreover, is wind and air, for air, when it is moved by *any* agitating *impulse*, becomes wind. When this air, *then*, has grown hot, and has heated all the rocks and earth round about, as far as it reaches, and elicited from them fire raging with violent flames, it mounts up, and thus expels the blaze straight from the jaws of the mountain, high *into the air*, and spreads it far abroad, and scatters the embers to a great distance, and rolls forth smoke heavy with thick darkness, while it darts out, at the same time, rocks of a wonderful weight. You cannot, *therefore*, doubt, but that it is the violent force of air *which produces these effects.*

Besides, the sea, for a considerable distance, *alternately* breaks its waves, and again retracts its tide, at the base of that mountain. From this sea caverns extend under ground as far as the ascending jaws of the mountain; by these *caverns* you must admit (*for* fact absolutely compels you) that *blasts of wind* enter[1] and penetrate from the open sea, and thus exalt the flame, and cast up rocks, and raise clouds of sand. For on the summit of the mountain are craters, as the Greek call them, *but* which we call jaws and mouths.

There are some phænomena, too, for which it is not sufficient to assign *merely* one cause, but *it is requisite to enumerate* many: of which, however, one *only can* be *the true cause.* As if, for example, you should see the dead body of a man lying *on the ground* at a distance, you naturally run over all the *probable* causes of his death,[2] that the one cause of it may be *sure to be* mentioned. For neither, perhaps, can you prove

[1] *Blasts of wind* enter.] Ver. 698.

hac ire, fatendum est,
Et penetrare mari, penitus res cogit, aperto,
Atque efflare foras.

I have supplied "blasts of wind" in accordance with the notion of Good. Creech supposed that not wind, but water, was meant, and he "gives," says Good, "the general interpretation of the editors;" but, he adds, "the idea of fire retreating before a body of water, and being forced upwards in a perpendicular line to an immense height, instead of intermingling with the water, is absolute nonsense."

[2] You naturally run over all the *probable* causes of his death, &c.]

that he died by the sword, nor of *the effects of* cold, nor by disease, nor by poison; but we know that it is something of this *destructive* nature that has happened to him. This same *observation* we may make in respect to many *other* things.

The Nile, the river of all Egypt,[1] *is the* only *one of all streams* in the world *that* swells towards summer, and inundates the fields. This *river* waters Egypt, from time to time, during the middle of the hot season; *and this happens*, possibly,[2] because the north winds, which are said to be Etesian *winds*,[3] prevail at that time in the summer over against the mouth *of the river*, and, blowing up the stream, retard it; and *thus*, forcing the flood up the channel, fill *it*, and compel *the waters* to stagnate. For without doubt these breezes, which come from the cold stars of the *north* pole, advance against the stream. The river flows from the warm countries, taking its rise from the extreme south, *and* from the regions of noon-

Ver. 707. *Fit ut omnes dicere causas conveniat leti, dicatur ut illius una.* "Enumerare oportet omnes causas." *Creech.*

[1] The Nile, the river of all Egypt.] Ver. 713. "He now speaks of the increase of the Nile in the summer; a matter concerning which there was much inquiry among the ancients. Herodotus notices and refutes their opinions; of which, the first attributed the effect to the Etesian winds; the second, to the ocean; the third, to the melting of snow near the upper portion of the stream; and then proposes his own as a fourth, imputing the swell of the river to the change of position in the sun, which, in winter, passing over Libya, exhales a great quantity of water from the Nile; but, at the approach of summer, retreating to the north, has the same effect on the rivers of Greece; so that, according to Herodotus, the Nile only seems to increase in summer, when, in reality, it decreases in winter. This opinion is opposed by Diod. Sic. lib. i. See also Plin. N. H. v. 9.; Pomp. Mel. i. 9; and Solin. c. 45." *Lambinus.* It is now pretty generally considered that the inundation arises chiefly from the periodical rains, which fall in the tropical regions from June to September; but that it is partially promoted, at the same time, by the Etesian or annual winds, which blow violently from the north-east, and diminish the discharge of water from the river into the sea.

[2] *And this happens*, possibly, *&c.*] Ver. 716. *Aut quia sunt æstate aquilones, &c.* The reader of the Latin will see that though this *aut* signifies *either*, there is no conjunction following it, to allow it to be so given in the English translation. I have therefore made a slight change.

[3] Said to be Etesian *winds.*] Ver. 717. *Etesiæ esse feruntur.* See v. 741.

day,[1] amidst the races of mankind blackened with scorching heat.[2]

It is possible, also, that a great collection of sand[3] (*at times* when the sea, excited by the wind, drives the sand within *the bed of the river*) may cause obstruction[4] at the mouth of the stream to the waters coming towards it. By this means it *may* happen that the outlet of the river *may be* less free, and *that* the current of the water, likewise, may be rendered less impetuous.

It is also possible, perhaps, that rain may fall more abundantly near its source, at the very time when the Etesian winds from the north drive all the clouds into those parts. For when the clouds, impelled towards the regions of the south,[5] have collected there in a body, they are at last pressed *and* driven against the lofty mountains, and compelled by the force *of the wind to discharge their waters.*

Perhaps, too, it may have its increase entirely from the high hills of the Ethiopians, at the time when the sun, shining on all *parts of them*, forces the white snow, with his dissolving rays, to descend *in a flood* upon the plains.

[1] From the regions of noon-day.] Ver. 724. *Mediâ ab regione diei.* That is, *ab regione medii diei*, or *ab regione meridiei.* See ver. 733.

[2] Races of mankind blackened with scorching heat.] Ver. 723. *Inter nigra virûm percocto sæcla calore.* This is according to Wakefield. It is strange that any man in his senses should have fixed such a reading in his text. *Percoctus* means *parched*, *scorched*, but what is *percoctus calor*, scorched heat? Lambinus read *percoctaque sæcla calore*, which is intelligible; and Lachmann gives *percocto sæcla colore*, which is equally intelligible, and approaches nearer to the manuscripts. I have rendered it *scorching heat*, to put some sense into the line. The same words occur again in ver. 1108. Sil. Italicus, xviii. 633, has *incocti corpora Mauri.*

[3] Collection of sand.] Ver. 725. He now suggests another cause, which is also noticed by Pomponius Mela, i. 9.

[4] Cause obstruction, &c.] Ver. 726. *Possit—Fluctibus adversis oppilare ostia contra.* "*Oppilare*," says Lambinus, "is to obstruct like a number of pillars or columns ranged in opposition." The construction is, *oppilare*, to offer obstruction, *fluctibus adversis*, to the adverse waters of the river, (i. e. to the waters of the river coming down against the sand,) *contra ostia*, opposite the mouth. Scheller, in his Lexicon, referring to this passage, cites merely "oppilare ostia," which might lead the reader to suppose that oppilare governs *ostia*; but Lambinus rightly observes that *oppilare* is here used absolutely.

[5] Impelled towards the regions of the south.] Ver. 733. *Ad mediam regionem ejecta diei.* See ver. 724.

Give me now your attention, *and* I will show with what nature *and qualities* the regions and lakes, *which are called* Avernian,[1] are distinguished.

In the first place, as to the circumstance that they are named Avernian, that name has been given them from their *peculiar* property, inasmuch as they are destructive to all *kinds of* birds; and because, when *any of the feathered tribe* have, in their flight, come over against those parts,[2] forgetful of their steerage, they relax the sails of their pinions, and, sinking down with powerless neck, fall headlong on the ground, if, perchance, the nature of the parts *beneath* allow *them to fall* thus, or into the water, if a lake of Avernus happen to be stretched under *them*. Such a spot is near Cumæ, where the hills smoke *from being* charged with vivid sulphur, *and abounding* with hot springs.

There is also *a place* within the walls of Athens, on the very summit of the hill, close by the temple of bountiful Tritonian Pallas, to which the hoarse crows never direct their flight; not *even* when the altars smoke with offerings. So carefully do they avoid, not the violent wrath of Pallas on account of watchfulness,[3] as the poets of the Greeks have sung, but *the fumes of the sulphur; for* the nature of the place produces this effect of itself.

There is also reported to be a place in Syria, *plainly* to be seen,[4] to which as soon as four-footed animals have directed

[1] Regions and lakes *which are called* Avernian.] Ver. 739. *Averna—loca.* Loca Averna, i. e. ἄορνα, or *without birds*, as being so noxious to birds that they cannot live in the air above them. It is to be observed that Lucretius is not speaking of one particular Avernus, but of such places in general. He specifies one near Cumæ in Italy; one at Athens; and one in Syria. All his remarks have reference to these places as far as ver. 840.

[2] Have—come over against those parts.] Ver. 743. *E regione ea quòd loca quom venere.* "i. e. cùm è regione (ad) ea loca venère." *Lambinus.*

[3] Not the violent wrath of Pallas on account of watchfulness.] Ver. 754. *Non iras Palladis acres Pervigili causâ.* The crow is called *invisa Minervæ*, (Ov. Am. ii. 6, 35,) because, as the fable tells, having watched three damsels, (Pandrosos, Herse, and Aglauros, to whom she had intrusted Ericthonius, with injunctions not to open the chest in which he was concealed,) she informed the goddess that they had disobeyed her orders. Why Minerva was so much offended at this does not appear; but the crow, it seems, ever afterwards shunned her and her temples. See Ov. Met. ii. 542, *seq.*

[4] *Plainly* to be seen.] Ver. 757. *Videri.* "Ὥστε ἰδεσθαι." *Lambinus.*

their steps, the very nature *of it* causes them to fall heavily *on the earth*, as if they were suddenly made a sacrifice to the infernal deities.

But all these things are effected by the operation of nature; and the origin *of them, and* from what causes they arise, is apparent. *So that* the gate of Tartarus must not be thought to be situate in these regions, *nor*, moreover,[1] must we imagine that the infernal deities *can* possibly draw souls down from hence into the coasts of Acheron, as swift stags,[2] with *the breath of* their nostrils, are often supposed to draw the crawling tribes of serpents from their hiding-places. *But* observe, *I pray you*, how far *all* this is at variance with just reasoning; for I now proceed to give you a *full* explanation concerning *this* very subject.

In the first place, I assert this, (which I have also frequently asserted before,[3]) that there are in the earth all kinds of forms *of the atoms* of things; *of which there are* many that are wholesome for food, and many that may bring on disease and hasten death. We have also previously shown[4] that for different animals, with regard to the sustenance of life, some substances are better adapted than others, on account of their dissimilar natures, and opposite constitution one to the other, and the primary figures of their seminal-particles. Many noxious atoms pass through the ears; many *that are* offensive and harsh to the sense penetrate through the nostrils; nor are there few only *which are* to be avoided by the touch, or shunned by the sight, or which are bitter to the taste.

You may notice, too, how many things are of a violently pernicious influence on mankind, both disagreeable and deadly. To certain trees, *we may* first *observe*, has been assigned a poisonous shade,[5] so that they often cause pains in the head, if any one lies stretched on the grass beneath them.

[1] Moreover.] Ver. 764. *Post*, i. e. *deinde*, as Wakefield, whose reading it is, interprets. *Possibly*, in the next line, answers to *forte* in the original.

[2] As swift stags, &c.] Ver. 766. In reference to this notion see Pliny, N. H. ii. 53; Oppian, Cyneg. ii. 233; Ælian, de Anim. ii. 9.

[3] Which I have also frequently asserted before.] Ver. 770. See ii. 333.

[4] Previously shown.] Ver. 775. See iv. 634; v. 896.

[5] Poisonous shade.] Ver. 784. *Gravis umbra*. Pliny attributes this property to the walnut and the box-tree. H. N. xvii. 12, and

There is likewise on the high mountains of Helicon a tree,[1] which has been known to kill a man by the malignant odour of *its* blossom. All these *destructive substances*, you will understand, spring from the ground, because the earth contains many seeds of many things mingled in many ways, and distributes *them* separately *to different productions.*

And when a night taper, just extinguished,[2] strikes *a person's* nostrils with a pungent odour, *it* takes away his senses, so that he falls down on the very spot; as when *that* disease *takes effect*[3] which is accustomed to stretch *men* at full length.

And a woman, overcome with *the* strong *scent of* castor,[4] if she has smelt it at the time at which she discharges her menses, falls backward, and her elegant work drops from her tender hands.

And many other *things* relax the organs, *causing them* to languish throughout the body, and disturb the soul in its seat within.

Besides, if, *with a stomach* too full, you even stay long in a warm bath, or are drenched in a laver of tepid water,[5] how

xvi. 10. Some such quality seems to have been thought to belong to the shade of the juniper; for Virgil says, *Juniperi gravis umbra:* Ecl. x. 76. The Manchineel tree of the West Indies, and the Upas of Java, were then unknown to Europeans.

[1] On the high mountains of Helicon a tree.] Ver. 787. "What tree this is, I shall leave for others to divine. Some suppose it to be the yew; but why should he send us to Helicon for a yew, which is to be found any where in Italy? And to say that the yew will kill *with the odour of its blossom* is not true." *Faber.*

[2] A night taper, just extinguished.] Ver. 792. I know not who has seen an example of this assertion. Good quotes, from Smellie's Philosophy of History, vol. i., the following instance of a different sensation from the same odour. "I knew a gentleman who was in the daily habit of lighting and putting out candles, that he might enjoy the pleasure of their smell." "The effluvia of musk," says Busby, "as also of cheese, perhaps, and other esculents, will powerfully affect females, especially when they are under the circumstances alluded to by the poet."

[3] As when *that* disease *takes effect*, &c.] Ver. 794. *Ut pronos qui morbus mittere suevit.* "You may reasonably interpret it the *morbus comitialis*, or falling sickness." *Creech.*

[4] Strong *scent of* castor.] Ver. 795. *Castoreoque gravi.* "*Castoreum*, a liquid matter enclosed in bags or purses, near the anus of the castor, falsely taken for his testicles." *Chambers's Dict.*

[5] Warm bath—laver of tepid water.] Ver. 800. The one refers to the public baths, the other to bathing at home.

easily *may* it often happen that you may fall down *fainting* in the middle *of it!*

And how easily does the oppressive vapour and scent of charcoal find an entrance into the brain, unless we have first taken *a draught of* water![1] But when it has penetrated[2] through *all* the well-warmed apartments of a house, the odour of wine then falls like a deadly blow upon the nerves.

Do you not observe also that sulphur is produced in the earth itself, and that bitumen, with *its* offensive smell, forms concretions in it? When, moreover, men seek for veins of silver and gold, searching the hidden *depths* of the earth with

[1] Unless we have first taken *a draught of* water.] Ver. 804. *Nisi aquam præcepimus antè. Ante*, first, i. e. "before the odour of the charcoal can penetrate into the brain." *Lambinus.*

[2] But when it has penetrated, *&c.*] Ver. 805, 806. These verses and the two preceding, stand thus in Forbiger and Eichstadt:

> Carbonumque gravis vis atque odor insinuatur
> Quàm facile in cerebrum, nisi aquam præcepimus antè.
> At cùm membra domûs percepit fervida, nervis
> Tum fit odor vini plagæ mactabilis instar.

(In Wakefield's edition the word *At* begins a new paragraph.) It is therefore fair to suppose that Forbiger and Eichstadt referred *percepit* to *carbonum odor;* and I have translated the passage accordingly. Wakefield evidently referred it to *odor vini;* quum odor vini percepit membra domûs, tum fit (idem odor) plagæ mactabilis instar. And thus his follower Good renders it:

> While the foul gas, that from fermenting must
> Springs, like a blow deep stuns us with its force.

Good had doubtless referred to Wakefield's note, where a passage from Gronovius (Obs. iii. 5.) is quoted, who would read *mustum* instead of *nervis.* As for Lambinus and his party, they read,

> At cùm membra hominis percepit fervida febris,
> Tum fit odor vini plagæ mactabilis instar;

which Creech rendered by the audacious couplet,

> To those whom fevers burn, the piercing smell
> Of vigorous wine is grievous, death and hell.

Lachmann reads,

> At cum membra domûs percepit *fervidior vis*
> Tum fit odor *viri* plagæ mactabilis instar.

Viri, from *virus*, poison, referring to the charcoal. This may be right.

iron *instruments*, how *strong* an odour does the mine[1] exhale from beneath!

Or *have you not learned* how much poison is in the earth for gold mines to exhale?[2] What sort of looks and complexions do they produce in the men *who work in them?* Do you not remark, or hear *from others*, in how short a time they are wont to waste away, and how length of life is necessarily withheld from those whom superior power confines in such an employment? The earth, evidently, steams forth all these vapours, and breathes them out into the regions of the air, *which are* open and ready *to receive them.*

So, likewise, the regions of Avernus must send up from beneath a vapour destructive to birds; *a vapour* which ascends from the earth into the air, *in such abundance* as to poison the body of the atmosphere to a certain extent. *So that*, as soon as a bird has been borne thither on *its* wings, it is there stopped, being *so violently* affected by the invisible poison, that it drops down over against the spot where the exhalation raises *itself. And* when *the bird* has fallen there,[3] this same force of the exhalation takes away the remains of life from all *its* members. For at first it only excites, as it were, a certain giddiness in the birds, but afterwards, when they have fallen *from on high* on the very sources of the

[1] Mine.] Ver. 811. *Scaptensula.* It is a word formed from σκαπτὸς, ἡ, ὸν, (from σκάπτειν, *to dig*,) and ὑλη, *matter*, signifying *material for digging*, or *material dug up.* Lambinus thinks that it should be written without the *n*, and he seems to have reason on his side. Festus says that it was the name of a place in Macedonia, remarkable for its mines; and Faber observes that it hence became a general name for a mine.

[2] Or *have you not learned* how much poison is in the earth for gold mines to exhale?] Ver. 812. *Quidve mali fit, ut exhalent aurata metalla?* "Meaning," says Wakefield, "what poisonous matter that is, from which gold mines emit such exhalations?"

[3] *And* when *the bird* has fallen there, &c.] Ver. 825.

> Quò cùm corruit hæc eadem vis illius æstûs,
> Reliquias vitæ membris ex omnibus aufert.

Thus are the lines pointed in Forbiger and Wakefield; but I consider, with Creech, that there ought to be a point after *corruit*, which is to be referred, not to the vapour, but to the bird. When the bird has fallen down, the vapour deprives it of life. It is observable that Lucretius here uses *æstus* at the end of three verses out of four; in the first two places it signifies the Avernian vapour; in the third, giddiness in the birds. Comp. iv. 1020.

poison, it comes to pass that they must there yield up even their life, because a vast quantity of the poisonous-*exhalation* surrounds *them.*

It happens also, at times, that this vapour and exhalation of Avernus disperses the air which intervenes between the birds and the earth, *so* that *that* portion *of the atmosphere* is left, from this cause, almost empty. And when *the birds*, in their flight, have come over against this part, the effort of their wings immediately halts *and grows* ineffectual, and every struggle of their pinions, on either side, is unsupported. Thus, when they are unable to flap their wings, or to rest upon *them*, nature, you will understand, compels them to descend to the earth by *their own* weight, and *accordingly*, sinking *down* through *the part which is* almost a vacuum, they disperse abroad their lives through every pore of the body.

Water in wells,[1] moreover, grows cooler in summer, *and for this reason*, that the earth is *then* rarified by the heat, and emits rapidly into the air any atoms of warmth which it may happen to contain. The more, accordingly, the earth is exhausted of its heat, the cooler, also, does the water become which is concealed under-ground. *And on the contrary*, too, when the earth is contracted, and condensed, and congealed, as it were, with cold, it happens that, as it contracts, it discharges into the wells whatever heat it contains.

Near the temple of *Jupiter* Ammon,[2] there is said *to be* a fountain *which is* cold in the day and warm in the night. At *the peculiarity of* this fountain men greatly wonder, and imagine that the earth is heated, in its turn,[3] by the power of the sun *from* beneath, *during the time* when night has covered the earth with *its* awful darkness; *a supposition* which is too much opposed to just reasoning. For since the sun, striking on the uncovered body of water *at noon-day*, when the rays

[1] Water in wells.] Ver. 841. Having concluded his remarks on the Avernian regions, he proceeds to account, from natural causes, for other phænomena.

[2] Near the temple of *Jupiter* Ammon, *&c.*] Ver. 849. This fountain is described by Pliny, H. N. ii. 103; Pomp. Mela, i. 8; and Quintus Curtius, iv. 7. Reference is also made to it by Ovid. Met. xv. 309, and by Silius Italicus, iii. 669. Its warmth was doubtless supplied by subterranean fire, but for its alternations of heat and cold no cause has been assigned.

[3] In its turn.] Ver. 852. *Partim.* "Vicissim." *Wakefield.*

from above are possessed of such violent heat, cannot make it warm *even* on the surface, how can this *same sun* act upon the water, and infuse *into it* his quickening heat, *from* beneath the earth, which is of so dense *and solid* a consistence? Especially when he can scarcely make his warmth, by means of his glowing rays, penetrate through the walls of houses.

What, then, is the cause? *It is* evidently *this:* that *certain* ground, less dense than the rest of the ground, encircles this fountain; and *that* there are many atoms of heat near the body of water. Hence, when night covers the earth with its dewy shade, the ground underneath immediately becomes cold and contracts. By this process it happens that the soil, as if it were compressed with the hand, discharges into the fountain whatever atoms of heat it contains, which make the water warm to the touch,[1] as well as the steam of it. Afterwards, when the sun, with his morning rays, has relaxed and rarefied the earth, (as his active heat mingles with it,) the atoms of heat return again into their former places, and all the warmth of the water passes into the ground. From this cause the fountain becomes cold in the day-time.

Besides, the water is acted upon by the rays of the sun as the day comes on,[2] and is rarefied by the tremulous heat *of his beams.* It accordingly happens, that whatever particles of heat it contains, it disperses; as *water* often dispels the cold which it contains, and dissolves its ice, and relaxes its fetters.

There is also a cold spring *at Dodona,*[3] over which when tow is placed, it frequently, catching fire at once, throws out flame; and in like manner a torch, lighted at its waters, casts a radiance, wherever it swims *or* is impelled by the winds *over the surface; the cause* evidently *being,* that there are in the water many atoms of heat; and particles of warmth must also arise from the earth itself over all the bottom of the fountain,

[1] Make the water warm to the touch.] Ver. 869. *Calidum faciunt laticis tactum.* Make the touch of the water warm.

[2] As the day comes on.] Ver. 876. *In lucem.* Towards day. Comp. *in æstatem*, towards summer, ver. 713.

[3] Cold spring *at Dodona.*] Ver. 880. "Having shown that there is nothing divine in the fountain of Jupiter Ammon, he proceeds to make a similar assertion with regard to the fountain of Jupiter Dodonæus." *Creech.* I have added "at Dodona" in the text, where Pliny, H. N. ii. 103, describes the fountain as being situate.

and be exhaled and pass forth, at the same time, into the air; yet *these particles must* not *be* so vivid as that the spring can be rendered hot *by them.*

Besides, *some powerful* influence excites those *atoms of heat*, when dispersed abroad, to burst suddenly upwards through the water, and to combine *on the surface;* as, in the sea around Arados,[1] *there is* a spring of fresh water which bubbles up *through it*, and puts aside the salt waves around it. And in many other places the sea affords a seasonable relief to thirsty mariners, inasmuch as it casts up fresh water among the salt. Thus, too, those atoms *of heat* may burst up through that fountain *of which we have spoken*, and diffuse themselves abroad among the tow; which *atoms*, when they combine together, or adhere to the substance of the *tow or* torch, easily take fire at once; because tow and torches contain likewise many particles of heat, *which may unite with those in the water to produce flame.*

Do you not observe, also, that when you hold the wick *of a lamp*,[2] recently extinguished, to a night taper, it takes fire before it touches the flame? And *have you not noticed* a torch *catch fire* in like manner? Many other substances, too, affected by the mere heat, begin to burn at a distance *from a fire*, before *its* flame closely involves *them.*[3] Such, therefore, we must conceive to be the case with respect to that fountain.

In the next place, I shall proceed to show by what law of nature it happens that the stone, which the Greeks call a magnet,[4] from the name of the region *that produced it*, (for

[1] In the sea around Arados.] Ver. 891. *Indu mari Aradio.* Arados was a town, built on an island of the same name, on the coast of Phœnicia.

[2] Wick *of a lamp.*] Ver. 901. *Linum.* There is no doubt that this is the meaning of the word *linum* in this passage.

> "When, just extinct, the taper we apply
> To one full blazing." *Good.*

[3] Closely involves *them.*] Ver. 905. *Imbuat.*

[4] Magnet.] Ver. 908. Magnesia was a region in Lydia, of which the inhabitants were called Magnetes; and from them, according to Lucretius and others, the magnet was named. Others say it had its name from Magnes, a young man, who, walking over some stones, found himself held fast by the iron attached to his shoes, and thus first discovered the power of the magnet. See Plin. H. N. v. 29, xxxvi. 16. This dissertation on the magnet continues to ver. 1089.

it was first found in the country of the Magnetes,) has the power to attract iron.

At this stone men look with astonishment, for it often exhibits a chain of little rings suspended from it. Since you may at times see five or more, hanging in a straight line, oscillate in a gentle breeze, whilst one depends from another, attached to it underneath; and *whilst* they feel from each other the influence and attraction of the stone; so thoroughly does its force pervade *the whole succession of rings.*

In matters of this kind, you must establish many points before you can state the principle of the thing itself; and I must, *accordingly,* approach *the subject* by a long circuit *of introductory remarks;* on which account I entreat your attentive ear and *favourable* regard.

In the first place, from all bodies,[1] whatsoever we behold, there must necessarily flow, and be emitted and dispersed, *certain* substances which strike the eye and excite vision; odours, too, are perpetually flying off from some bodies; as cold *is also diffused* from rivers, heat from the sun, spray from the billows of the ocean, which consumes walls near the shore; nor do various voices cease to flit through the air; moreover the moisture, *so to speak,* of a salt taste comes often into the mouth when we are walking near the sea; and when we look at diluted wormwood being mixed, a bitterness affects *our palate.* So *evident is it that* a certain substance is carried off perpetually from all bodies, and is dispersed in all parts round about; nor is there any delay or rest allowed to the efflux; since we constantly perceive *it* with our senses, and may see all objects at all times, and smell *them,* and hear *them* sound.

Here I shall observe again[2] that which is set forth in the first part of *my* poem, *namely,* of how porous a consistence bodies are. For though to understand this is of importance to many subjects, it is especially necessary to establish, with regard to the very matter immediately *under our notice,* (concerning which I am proceeding to speak,) that there is

[1] In the first place, from all bodies, *&c.*] Ver. 922. Fifteen verses are here repeated from iv. 217.

[2] Here I shall observe again.] Ver. 937. *Repetam commemorare.* See i. 266.

nothing *in the whole of things* before us[1] but body intermingled with vacuity.

It is apparent, first of all, that in caverns[2] the overhanging rocks exude moisture, and distil running drops. From the whole of our own bodies, also, perspiration trickles; our beard springs forth *from* them, and hairs *arise* over all our limbs and members; the food *which we take* is distributed through all *our* veins, and swells and nourishes the extreme parts of the body, and *even the very* nails; we feel cold, too, and vivid heat, penetrate through brass; we feel *them* likewise pass through gold and silver, when we are holding full cups.[3] Moreover voices fly through the stone walls of houses; odours, and cold, pervade them; as well as the heat of fire, which has power to penetrate even the substance of iron, *as is felt* where the corslet confines the circuit of the neck.[4] The infection of disease likewise *penetrates walls*, as it enters *into houses* from without. *Philosophers* too, with reason, send far back again[5] into the *depths of* heaven and earth, the

[1] Before us.] Ver. 942. *In promtu.* "*Nihil in rerum* naturâ." *Creech.*

[2] In caverns, *&c.*] Ver. 943. His design, in these observations, is to show that in all bodies, however apparently solid, more or less of vacuity is intermingled; and that into the *vacua*, or empty spaces, the atoms of other substances may enter. Our bodies contain *vacua*, or are porous, for out of them perspiration trickles, and through them are distributed particles of food; metals and walls are porous, for they admit atoms of heat and cold, of voices and sounds. The heavens, and the earth in general, are of a similar consistence, for they can emit from their substance, whilst it remains apparently undiminished, atoms to produce a tempest; and receive them back into themselves as the tempest subsides.

[3] Holding full cups.] Ver. 951. See i. 495, 496.

[4] Corslet confines the circuit of the neck.] Ver. 954.

> Ignis; qui ferri quoque vim penetrare suevit
> Denique, quà circum colli lorica coercet.

This is Wakefield's reading. Lambinus read, *Undique quà circum corpus lorica coercet.* The passage is probably still corrupt.

[5] *Philosophers* too, with reason, send far back again, *&c.*] Ver. 957.

> Et tempestatem terrâ cœloque coortam,
> In cœlum terramque remote jure facessunt,
> Quandoquidem nihil est, nisi raro corpore nexum.

This is Wakefield's reading, and is translated according to his exposition. "The atoms of a tempest," says he, "which arise from the

tempest which has burst forth from the earth and the heaven; since *they rightly consider that* there is no combination *of matter, ethereal or terrestrial,* which is not of a consistence far-from-impenetrable *to other atoms.*[1]

To this is *to be* added, that all atoms, which are discharged from bodies, are not possessed of the same *power to affect the* senses, nor are they *all* alike adapted to all substances.

The sun, *we may* first *observe,* extracts the moisture from the earth, and renders *it* dry; while it melts ice, and forces the snows, piled on the high mountains, to dissolve in *the heat of* its rays. Wax, too, placed in the warmth of the sun, becomes liquid. Fire, moreover, melts brass, and dissolves gold, but contracts and draws together the hides and flesh *of animals.* Water, also, hardens iron *when fresh* from the fire, but softens hides and flesh when hardened with heat. The wild olive tree, than which there is nothing that grows more bitter to the taste of man, delights the bearded goats as if it were flavoured with nectar and ambrosia. Swine, besides, shrink from ointment of amaracus,[2] and dread every kind of perfume; for that which seems, at times, to restore us, as it were, to life, is to bristly boars strong poison. But mud, on the contrary, which is to us most repulsive filth, seems clean *and attractive* to swine, *so* that they roll themselves over *and over* in it without being tired.

There is this, likewise, *which* remains *to be noticed, and which* seems necessary to be stated before I proceed to speak of the exact subject *before us.* Since in various bodies are situated many pores, *these pores* must be distinguished by natures differing from one another, and have respectively their own forms and shapes.[3] For there are various senses in ani-

heaven and earth, are into the heaven and earth received back again." With *facessunt,* which sadly wants a nominative, he understands *philosophi,* and takes *remotè facessunt* in the sense of *send far back.* Lambinus and Creech have another lection, which, however, does not much alter the sense.

[1] Far-from-impenetrable *to other atoms.*] Ver. 959. I have rendered *raro* by *far-from-impenetrable.* See on ver. 943, 947.

[2] Swine—shrink from ointment of amaracus.] Ver. 974. *Amaracinum fugitat sus.* "Vetus adagium est, nihil cum fidibus graculo; nihil cum *amaracino sui.*" *Aul. Gell.* Pref.

[3] Their own forms and shapes.] Ver. 984. *Suam naturam—viasque.* All pores must have their own *viæ* by which they allow atoms to

mals, of which each perceives for itself its own peculiar object; since we observe that by one *sense* sounds penetrate *into us*, by another taste from the juices *of food*, by another the smell of perfume. Besides, one thing seems to pass through stone, another through wood, another through gold. One *substance* seems to penetrate silver, and another glass; for through the latter images seem to pass, and through the former heat. One thing, too, seems to penetrate through the same *passages* quicker than another. This *difference*, you may be certain, the nature of the passages obliges to exist; since it evidently varies (as we showed a little above) according to the different consistence and texture of bodies.

For which reason, since all these *points* are established and laid down, and *every thing* prepared and made ready for us, the principle *of the magnet* will hence, moreover,[1] be easily shown, and the whole cause, which attracts the substance of the iron, will be made manifest.

In the first place, many atoms, or effluvia, must necessarily fly off from the stone, which, by their impact, disperse the air that is situate betwixt the stone and the iron. When this space is emptied, and a large void is made between *them*, atoms of the iron, immediately darting forward, rush in a body into the vacuum; and the whole ring of necessity follows, and passes onward with its whole body. *For* no substance coheres and combines more closely,—having its primary-elements intimately involved,—than the cold and rough consistence of stout iron.[2] It is therefore the less wonderful, if (as is stated) certain of *its* atoms,[3] starting forth in a body from the iron *itself*, cannot rush into the void without the whole ring following; which it does, and continues to move until it has

enter them; i. e. their own shapes. "Propriam figuram, propriamque circumscriptionem." *Creech.* Comp. iv. 651, *seq.*

[1] Moreover.] Ver. 999. *Quod superest.*

[2] Cold and rough consistence of stout iron.] Ver. 1010. *Validi ferri naturæ frigidus horror. Horror* means *roughness*, as *horreo, to be rough.* Good translates the verse ludicrously enough, *the cold steel, all horror to the touch;* and, having picked up from Wakefield's notes *Tum ferri rigor*, (Virg. Geo. i. 143,) he translates it, at the foot of his page, still more ludicrously, "The steel's chill shudder." What is the *shudder of steel?* And was steel *all horror* to Dr. Good's touch?

[3] Certain of *its* atoms.] Ver. 1011. *Ex elementis corpora.* i. e. (Quædam) corpuscula ex (annuli) corpusculis. Lambinus and Lachmann have other readings.

reached the stone itself, and has become fixed to it by secret attachment. The same *process* takes place on all sides; *and* wherever an empty space is formed, whether at the side *of the iron* or above *it*, the nearest atoms tend immediately into the void. For they are impelled by impacts from other *surrounding atoms;* nor can they, of themselves, rise upwards, *or pass away from the magnet*, into the air.

To this is *to be* added *another reason* why this *motion of the atoms* may *still* more *certainly* take place; *namely*, that as soon as the air before the ring has become thinner, and the space between it and the magnet more vacant and open, it immediately happens that the air which is situate at the back of *the ring*, carries it forward, as it were, and impels it from behind. For the air surrounding *all* bodies continually strikes *upon them;* but *the air that surrounds* the iron drives *it* forward at such times *as it approaches the magnet*, because the space on one side is empty, and receives *it* into itself. And this air too, of which I am speaking, subtilly conveying itself, through the numerous pores of the iron, into *its* small recesses, thrusts and pushes it forward. This substance *of the iron*, accordingly, is helped *forward* by this assistance and impulse, as ships and *their* sails *are driven onwards* by the wind.

All bodies, moreover, must contain air in their substance, since their consistence is *more or less* porous, and air surrounds and is in contact with every thing. This air, then, which is concealed within the iron, is continually agitated with a restless motion, and thus, doubtless, strikes upon the ring, and moves it, as you may conceive, internally; and *the whole air, within and without*, tends in the same direction in which it has once started, and *where* it has found a vacuum to *assist its* efforts.

It happens, too, at times, that the substance of the iron recedes[1] from this stone, *as if* accustomed to start back from *it*, and to follow *it*, by turns.

[1] Substance of the iron recedes.] Ver. 1041. "It happens, too, says Lucretius, that the iron at times starts back from the magnet, being accustomed sometimes to follow it, and sometimes to flee from it: to follow it, when nothing intervenes between the two; and to flee from it, when brass is interposed." *Lambinus.* Gassendi thought that Lucretius may have been acquainted with the difference in the two poles of the magnet; but the poet, says Creech, doubtless had no more knowledge than he exhibits.

Thus have I seen iron *rings* of Samothrace,[1] as well as filings of iron, *lying* in brazen basins, thrown into agitation, and *start up*, when the magnet was applied underneath; so *that* it seems desirous to flee away from the load-stone, when the brass is interposed; *for it is by the intervention of the brass that* so great an aversion is produced; since, as is evident, when the effluvia of the brass have pre-occupied and filled up the open pores of the iron, the effluvia of the stone follow, and find all parts of the iron full; and have no way to pass through, as *they would have had* before. They are therefore obliged to strike against the substance of the iron, and to drive *it upward*, with their own stream; by which means *the magnet* repels from itself, and drives *away* through the brass, that metal, which, without *the interference of* the brass, it *most* frequently attracts.

But do not wonder, in the consideration of these subjects, that the effluvia from this stone cannot also repel other substances. For some *substances* remain unmoved as being sustained by their own weight; of which sort is gold; and others cannot be repulsed, because they are of a porous consistence, *so* that the effluvia pass through them unobstructed; of which kind wood appears to be. The substance of iron, however, is placed between these two, *so that*, when it has admitted certain atoms of the brass, it is then possible for the stream of particles from the magnet to impel it.

Nor are these *mutual affinities of the magnet and iron* so unlike *the affections of all* other substances, but that many instances of the kind occur to me; *instances of bodies* which I could mention as remarkably adapted to each other.

In the first place, you see stones cemented only with lime. Wood is joined together with glue, prepared *from certain parts* of oxen; *and with such strength*, that the veins of boards will open in cracks,[2] sooner than the seams of ox-glue will relax their fastenings.

[1] Iron *rings* of Samothrace.] Ver. 1043. *Samothracia ferrea* "Iron rings, so called from Samothrace, where they were first made. They were hollow, and were worn because they contained something of the nature of amulets, as a protection against harm." *Lambinus.* Wakefield refers to Isidore, Orig. xix. 32, and to Harduin ad Plin. H. N. xxxiii. 6, p. 605.

[2] Will open in cracks.] Ver. 1069. *Vitio hiscant.*

The juice of the vine is willing to mingle with spring water, while heavy pitch, and light olive oil, refuse *to unite with it.*

The purple colour of the murex so blends in one body with wool, that it can never be extracted from it; not *even* if you should strive to restore *the wool to its whiteness* with *all* the waves of the sea; not *even* if the whole ocean, with all its floods, should be disposed to cleanse *it.*

Moreover, one substance *only* couples gold with gold;[1] and brass is united with brass *only* by pewter.[2]

How many other *facts of this nature* is it possible to produce! *But* to what purpose *would it be?* Neither are such long digressions necessary for you, nor does it become me to bestow so much labour on this *one* subject; but it is proper *for me* to comprise many matters in brief space and in few words.

To conclude, then, respecting the magnet. Between those bodies, whose textures so mutually correspond,[3] that the cavi ties of this answer to the prominences of that, and *the cavities of* that to *the prominences of* this, the best union is *evidently* formed.[4] It is possible, also, *we may observe*, that some bodies may be held united as if with rings and hooks;[5] *a mode of*

[1] One substance *only* couples gold with gold.] Ver. 1077. *Res auro aurum concopulat una.* "The substance is *chrysocolla*, that is, *cement of gold;* the mode of making which you may learn from Pliny, H. N. xxxiii. 5." *Lambinus.* Good says that *chrysocolla* is "a mineral sand, found on the shores of the Red Sea, of an elegant green colour, denominated by the natives of modern times *tincar*, or *tincal.* The borax, now in use for similar purposes, does not differ essentially from the chrysocolla, when dissolved and crystallized, and is, by some chemists, supposed to be precisely the same."

[2] Brass is united with brass *only* by pewter.] Ver. 1078. *Ærique æs plumbo fit uti jungatur ab albo.* "Pewter is, in the present day, the common solder for copper and brass; it is generally a combination of tin, lead, and regulus of antimony." *Good.* It would be wrong, he adds, to translate *plumbum album*, white lead, "for the ceruse, or white lead of modern days, is no solder whatever in metallic preparations."

[3] Textures so mutually correspond.] Ver. 1083. *Ita texturæ ceciderunt mutua contrà.* "Texturæ ita mutuo respondent." *Creech. Contrà ceciderunt* means *correspond*, and *mutua* is adverbially for *mutuò.*

[4] The best union is *evidently* formed.] Ver. 1085. *Inter se junctura hæc optima constat.* Lambinus reads *horum.*

[5] United as if with rings and hooks.] Ver. 1086. He has before

union which seems to take place, rather *than any other*, between the loadstone and iron.

I shall now explain what is the nature *and origin* of diseases,[1] and how a morbid infection *of the air*, suddenly arising, may spread deadly destruction among the race of mankind and the tribes of inferior animals. In the first place, I have already shown[2] that there are in many substances atoms which tend to preserve our life; and, on the other hand, many must necessarily fly abroad which are *productive* of disease and death; and when these have by chance combined, and disordered the air, the air, *when in this state, consequently* becomes unwholesome. And all this prevalence and pestilentialness of diseases arise either from without *the earth*, (as clouds and mists *gather* in the heaven above *us*,) or spring, *as* frequently *happens*, from the earth itself, when, drenched with *immoderate and* untimely rains, and acted upon by *fierce* rays of the sun, it has contracted *a kind of* putrescence.

Do you not observe, also, how those who visit *any place* far from their country and their home, are affected by the change in the air and water? *And this happens*, because the substances *in those elements* greatly differ. For how much *must* we suppose that the air of the Britons varies from that which is in Egypt, where the *north* pole of the world fails *to show itself?*[3] Or how much *must we imagine* that that which hangs over Pontus differs from *that which stretches over* Cadiz, and towards the races of men blackened by the parching heat *of the sun?*[4] These four *kinds of air*, which we observe to proceed from the four winds and *four several* quarters of the heaven, we know *to be* different one from another; and the complexion and looks of the men, also, appear to differ widely; and *peculiar* diseases *seem* to affect each individual nation.

shown how the iron may be brought to the loadstone, and he now shows how it may be held attached to it.

[1] *Origin* of diseases.] Ver. 1089. From showing how the atoms of the magnet and iron act on one another, he makes a transition to the action of atoms on the human frame, so as to produce disease.

[2] I have already shown.] Ver. 1093. See iv. 634; v. 897; vi. 769.

[3] Where the *north* pole of the world fails *to show itself.*] Ver. 1106. *Quà mundi claudicat axis.* "That is, where the arctic pole, which to us is always visible high in the heaven, is depressed below the horizon." *Lambinus.* "*Claudicat* for *deficit.*" *Creech.*

[4] Parching heat *of the sun.*] Ver. 1108. *Percocto calore.* See ver. 723.

There is the disease *called* leprosy,[1] which has its rise on the river Nile, in the middle of Egypt, and in no other country.

In Attica the feet[2] are affected *with the gout;* and in the country of Achaia the eyes are afflicted *with soreness.* Hence various regions are unfavourable to various parts and members; *and* this *effect* the difference of the air produces.

When that air, therefore, which to us *is* strong poison, puts itself in motion, and an unwholesome atmosphere begins to spread, it creeps along, by degrees, like a mist or cloud, and disorders the whole heaven, wherever it advances, and compels it to alter *its nature.* It happens, accordingly, that when *this corrupt air* has at length joined our air, it infects it, and renders it like itself, and unsuitable *for us.*

This new malady and pest, therefore, either suddenly falls into the water, or penetrates into the very corn, or into other food of men and cattle. Or even, as may be the case, the infection remains suspended in the air itself;[3] and when, as we breathe, we inhale the air mingled with it, we must necessarily absorb those *seeds of disease* into our body. By a similar process a pestilence often spreads among oxen; and contagion among dull sheep. Nor does it make any differ-

[1] Leprosy.] Ver. 1113. *Elephas.* Poetically for *elephantiasis;* a kind of leprosy. "Some assert that this disease affects only those inhabitants of Egypt who drink the water of the Nile; but Celsus, iii. 25, says that though it is almost unknown in Italy, it is in some countries very common." *Creech.*

[2] In Attica the feet, *&c.*] Ver. 1115. The commentators cite no other authorities for the prevalence of these diseases in these countries.

The infection remains suspended in the air itself.] Ver. 1126.

> The all-surrounding heaven, the vital air,
> Is big with death. And though the putrid south
> Be shut; though no convulsive agony
> Shake, from the deep foundations of the world,
> Th' imprison'd plagues; a secret venom oft
> Corrupts the air, the water, and the land.
> What livid deaths has sad Byzantium seen!
> How oft has Cairo, with a mother's woe,
> Wept for her slaughter'd sons and lonely streets!
> Ev'n Albion, girt with less malignant skies,
> Albion, the poison of the gods has drunk,
> And felt the sting of monsters all her own.
>
> *Armstrong,* Art of P. H. iii. 521.

ence, whether we go into climates that are unfavourable to us, and change the atmosphere around us *ourselves*, or whether nature, of her own accord, brings upon us corrupt air, or any other *affection* which we are not accustomed to experience, *and* which, at its first approach, may infect us *with disease*.

Such a cause of disease, and such deadly vapour *in* the atmosphere, formerly rendered the fields poisonous throughout the territories of Attica;[1] *it* both dispeopled the roads, and exhausted the city of *its* inhabitants. For, having its rise in remote parts, proceeding from the coasts of Egypt, and having passed through a long *tract of* air, and *over* the liquid plains *of the sea*, it at length descended on the people of Pandion,[2] and all were then consigned by troops to disease and death.

They first found the head burning with heat,[3] and the eyes

[1] Territories of Attica.] Ver. 1137. "Here follows a description of the plague which formerly devastated Athens, drawn from the second book of Thucydides, and the third of Hippocrates de Morbis Popularibus. This description Lucretius has given with such effect, that, in the opinion of Macrobius, (Sat. vi. 2,) he afforded matter for imitation to Virgil, Georg. iii. 478, *seq.* Certainly Ovid took something from him in the seventh book of the Metamorphoses." *Creech.*

I should observe that I have omitted here and there a conjunction or two, which, though serviceable in Lucretius's verse, would but have clogged English prose.

Armstrong, in his Art of Preserving Health, book iii., has a short description of a plague, in some passages of which he has copied Thucydides and Lucretius. I shall notice a few of his imitations.

Diodorus Siculus, xii. 7, mentions three causes of this plague: a superabundance of rain in the middle of summer, which caused miasma to spread through the atmosphere; the want of proper food, the fruits of the preceding year having been crude and unwholesome; and the defection of the Etesian winds, which, in other years, used to temper the heat in summer. Hence, says he, men's bodies contracted an evil habit, from which arose all sorts of burning distempers.

[2] People of Pandion.] Ver. 1142. Pandion was a king of Athens in its earliest days.

[3] They first found the head burning with heat.] Ver. 1143. *Principio caput incensum fervore gerebant.* This is taken from Thucydides. This passage, rendered as follows by Le Blanc de Guillet, will afford a specimen of his version:

D' abord ces malheureux, à la vue alarmee,
S' offroient, les yeux ardens, et la tête enflammée.
Bientôt un sang epais suintoit de leur gosier,
Où des ulcères noirs, prompts à se deplover

red with an *extraordinary* brilliancy shed *over them.* The jaws, also, *which looked* black within, exuded blood; and the passage of the voice was clogged and obstructed[1] with ulcers. The tongue, the interpreter of the mind, was covered with drops of gore, and *was* enfeebled by the disease, slow in its motion, *and* rough to the touch.

Then, when the pestilential influence, *descending* through the jaws, had filled the chest and gathered in the suffering stomach[2] of the patients, all the defences of life at once gave way.

The breath sent forth a fetid odour from the mouth, *such* as putrid carcasses, cast out *upon the earth*, emit. The powers of the whole mind, and the whole body, grew languid, *as if* on the very threshold of death. On *these* intolerable sufferings was perpetually attendant an anxious distress of mind, and complaints mingled with moanings. A retching,[3] too

Interceptant la voix, l' étouffaient dans la bouche.
De l' ame appesantie, interprète farouche,
La langue foible, rude, et n' ayant qu'un jeu lent,
Se distillait de même en fluide sanglant.
Lorsqu' enfin, du gosier, coulant dans la poitrine,
Ministres dangereux d' une guerre intestine,
Ces poisons, en torrens, la portaient dans le cœur;
Les ressorts de la vie, à leur effort vainqueur,
S' ébranlaient, s' écroulaient, tout prêts à se dissoudre.
Des cadavres infects, pourrissans dans le poudre,
D' une haleine empestée, on exhalait l' odeur.
L' ame étoit sans ressort; cedant à sa langueur,
A sa destruction, le corps touchait, comme elle.
E quelle anxieté profonde, universelle!
Quels chagrins douloureux, quels long gemissemens
Mêlés de cris plaintifs de momens en momens!
Quels sanglots, nuit et jour, irrite ces tortures,
Contracte tous les nerfs, les membres, leur jointures;
Dissolve l' homme entier, épuisé dès long temps!

[1] Clogged and obstructed.] Ver. 1147. *Sæpta coibat.*

[2] Stomach.] Ver. 1151. *Cor.* "The stomach. The ancient physicians, says the Scholiast on Thucydides, called the stomach καρδία, or the heart, and pain in the stomach, καρδιωγμος." *Creech.*

[3] A retching.] Ver. 1159. *Singultus.* The term answering to this in the description of Thucydides, is λὺγξ κενὴ, on which Dr. Arnold makes the following observations. "Λὺγξ is what we call a hiccough, (compare Plato, Sympos. p. 185,) but here it seems to be almost approaching to what is called 'retching;' and λὺγξ κενη is that ineffectual retching consequent upon exhaustion, when nothing is actu-

frequently *occurring both* by night and by day, convulsed the nerves from time to time, and, contracting the limbs, rendered the sufferers powerless, exhausting those who were already wearied out *with pain.*

Yet you could not perceive the surface of the body of any one externally[1] inflamed with *any* extraordinary *degree of* heat, but rather offering a sensation of gentle warmth to the hand. At the same time, *however*, all the body looked red with ulcers, as it were, burning in *it;*[2] as it appears when the erysipelas spreads over the limbs. But the internal part of the patient was glowing with heat, *that penetrated even* into the bones; a fire raged in the stomach, as in a furnace; so *that* you could have rendered no garment, however light and thin, of use to the person of any one; they constantly exposed their limbs, burning with the disease, to the wind and the cold; *and* some *threw themselves* into cool rivers, precipitating their bodies naked into the waters. Many, approaching *the brink* with

ally brought off the stomach." The expression "ineffectual retching," has been adopted by Mr. Dale in his translation of Thucydides. For λὺγξ and *singultus* the lexicons give nothing but *sobbing* or *hiccup*, but in these passages of Thucydides and Lucretius something more is evidently intended.

The Scholiast on Thucydides says that "there was a λὺγξ πλήρης as well as λὺγξ κενή, as Hippocrates observes." I have not been able to find this distinction in Hippocrates, but it may be discoverable. From the manner in which Hippocrates often uses the word λὺγξ, he seems at times to mean more by it than we understand by *hiccup*. Thus Aphor. vii. 3: Ἐπὶ ἐμέτῳ λὺγξ καὶ ὀφθαλμοὶ ἐρυθροὶ, κακον. De Morb. iii. 19: ὁπόταν οὖν προσῇ καὶ λὺγξ ἅμα, καὶ αἵματος θρόμβους ἀποβήσσῃ ἅμα τῷ σιάλῳ μέλανας, οὗτος ἀποθνήσκει ἑβδομαῖος. In the passage of Plato to which Arnold refers, Sympos. c. 13, it means simply hiccup.

Of the translators of Lucretius, Creech, for *frequens singultus*, gives "vexing sobs;" Busby, "melting momentary sobs;" Good, "hiccough deep;" and the old version, which Good calls Guernier's, "frequent sobbings." The French translators, Le Blanc de Guillet and Pongerville, give *sanglots.*

Thick and pantingly
The breath was fetch'd, and with huge lab'rings heaved.
Armstrong, Art of P. H. iii. 559.

[1] Surface of the body —— externally.] Ver. 1163. *Corporis in summo summam fervescere partem.*

[2] Ulcers, as it were, burning in *it.*] Ver. 165. *Ulceribus quasi inustis.* See on ver. 723.

open mouths, hurled themselves headlong down[1] into the water in wells; *for* a parching thirst, *raging* insatiably, *and* driving-*them*-to-plunge *their* bodies *into the flood*, made vast showers seem only as small drops.

Nor was there any intermission of the malady; the bodies *of men* lay exhausted; medicine spoke in low tones with a secret dread;[2] so incessantly did *the patients* roll their eyes, *which remained* wide open, burning with disease, and unvisited by sleep. Many other signs of death at the same time showed themselves; the mind was distracted with anguish and dread; the brow *was* gloomy; the look wild and fierce; the ears disturbed and filled with noises; the breathing *was either* fast, or thick, or drawn *but* seldom; *there was* a moist dew of perspiration shining upon the neck; the saliva was thin, scanty, and tinged with the colour of saffron; *it was* also salt, and expelled with difficulty from the hoarse throat by coughing. In the hand, the nerves contracted; and the *whole* arm shook. From the feet a coldness rose quickly, *yet* gradually,[3] over the body; the nostrils, towards the closing hour *of life*, were compressed; the point of the nose *was* sharp; the eyes were hollow; the temples sunk; the skin cold and hard; a distortion overspreading the mouth; the forehead tense *and* prominent; and, not long after *these appearances*, the limbs lay stretched in rigid death; and for the most part, when the eighth light of the sun shone, or, at farthest, at *his* ninth rising, they yielded up *their* life.

Of which *sufferers*, if any one *for a time* escaped death, (as was possible, either by reason of the foul ulcers *breaking*, or by means of a black discharge from the intestines,) yet con-

[1] Hurled themselves—down.] Ver. 1173. *Altè inciderunt.* Fell from on high, from the high brink.

[2] Medicine spoke in low tones with a secret dread.] Ver. 1178. *Mussabat tacito medicina timore.*

—— The Salutary Art
Was mute; and, startled at the new disease,
In fearful whispers hopeless omens gave.
Armstrong, Art of Preserving Health, book iii.

Silius Italicus, in his description of the plague that happened in Sicily, during the siege of Syracuse by Marcellus, has "Succubuit Medicina malis." xiv. 669.

[3] Rose quickly, *yet* gradually.] Ver. 1191. *Minutatim succedere non dubitabat.*

sumption and destruction awaited him at last; or, as was often *the case*, an excessive flux of corrupt blood, *attended* with *violent* pains in the head, issued from the obstructed nostrils; and, by this outlet, the whole strength and substance of the man passed away.

He, moreover, who had escaped *this* violent flux of foul blood, *was not certain wholly to recover; for* still the disease was ready-to-pass into his nerves and joints, and into the very genial organs of the body. And *of those who suffered thus*, some, fearing the gates of death, continued to live, *though* deprived by the steel of the virile part; and some, *though* without hands and feet, *and* though they lost their eyes, yet persisted-to-remain in life; so strong a dread of death had taken possession of them. Upon some, too, came forgetfulness[1] of all things, so that they knew not even themselves.

And though numerous corpses, *heaped* upon corpses, lay extended over the ground, yet the tribes of birds, and of wild beasts, either ran off to a distance, to avoid the repulsive stench, or, after having tasted *the flesh*, sickened with instant death.

But, indeed, during those days, scarcely any bird appeared *in the sky;* nor did the destructive tribes of savage beasts leave the woods during the nights. Most of them suffered from the disease, and died; the faithful spirit of the dog,[2] espe-

[1] Upon some, too, came forgetfulness, *&c.*] Ver. 1210.

A wild delirium came; their weeping friends
Were strangers now, and this no home of theirs.
Harass'd with toil on toil, the sinking powers
Lay prostrate and o'erthrown; a pond'rous sleep
Wrapt all the senses up; they slept and died.
Armstrong, Art of P. H. iii. 562.

[2] The faithful spirit of the dog.] Ver. 1220. *Fida canum vis.* Compare *Canum permissa vis*, iv. 683. Thucydides, ii. 50, alludes to the effect of the disease on the dogs; and Homer makes the infection of his plague seize on dogs among the first:

On mules and dogs th' infection first began. *Pope.*

So Virgil, Geo. iii. 496:

Hinc canibus blandis rabies venit.
Then on bland dogs the madd'ning influence fell.

And so Silius Italicus, xiv. 594:

Vim primi sensere canes.
The dogs were first the dire disease to feel.

cially, stretched along all the streets, unwillingly relinquished life; the force of the disease, however, wrested the vital power from his limbs.

Funerals, unattended *and* solitary, were eagerly hurried over.[1] Nor was there any certain mode of cure common *and efficient for all.* For that which had secured to one the privilege of breathing the vital air,[2] and of beholding the regions of the sky, was *mere* poison to others, and hastened *their* death.

But that which, in these circumstances, was pre-eminently deplorable and wretched, was, that when any one found himself seized with the pestilence, he lay down, as if he were condemned[3] to death, sunk in spirit, *and* with a despairing heart,[4] thinking *only* of death, and gave up the ghost on the same spot *on which he fell.*

At no time, however, did the contagion of the insatiable disease cease to spread itself from one man to another, as *a murrain is disseminated* among woolly sheep and horned cattle. And this *circumstance*, even above all others, heaped death upon death. For on those, who shrunk from visiting their sick *friends*, fatal neglect soon took vengeance, (*as having been* too fond of life and *too* apprehensive of death,) *causing them to perish* by a squalid and miserable end, deserted *by their relatives*, and destitute of relief. But *those* who had been ready *to give assistance*, fell *into the malady* from infection, and by reason of the duty which shame, and the moving entreaties of

[1] Were eagerly hurried over.] Ver. 1224. *Rapi certabant.* It would seem either that this verse is out of its place, or that the passage is defective.

[2] The privilege of breathing the vital air.] Ver. 1226. *Vitales aëris auras Volvere in ore licere.*

[3] As if he were condemned.] Ver. 1231. *Damnatus ut esset.* "*Ut* for *quasi.*" *Faber.*

[4] Sunk in spirit, *and* with a despairing heart.] Ver. 1232.

Of every hope deprived;
Fatigued with vain resources; and subdued
With woes resistless and enfeebling fear;
Passive they sunk beneath the weighty blow.
Nothing but lamentable sounds was heard,
Nor aught was seen but ghastly views of death.
Infectious horror ran from face to face,
And pale despair.

the sufferers, mingled with sounds of reproach,[1] compelled them to undergo. The most excellent *characters*, accordingly, incurred this kind of death *most frequently*.

Those, moreover, who strove to bury the multitude of their dead, one after another,[2] returned *home* overcome with weeping and mourning. Hence *men* were stretched on their beds in great numbers, through sorrow *and despondency;* nor could any one be found, whom, in such a time *of calamity*, neither disease, nor death, nor mourning *for the loss of friends*, had affected.

Besides, *as the pestilence* now *spread*, every shepherd and herdsman, as well as *every* stout driver of the crooked plough, languished *under the infection;* their bodies lay cooped up within their *narrow* huts, consigned to death from *the effects of* want and disease. You might have seen the dead corpses of parents *stretched* on *their* dead children, and sometimes, again, children expiring on *the bodies of* their mothers and fathers.

And this affliction was brought, in no small portion, into the city from the country; *affliction* which a sick *and* infected multitude of rustics, flocking together from all parts, introduced. They crowded all places *of reception* and of shelter; for which reason, *as they were* thus crammed together, death the more easily strewed them in heaps by the force of contagion.

Many bodies, from *the effects of* thirst, lay stretched at the public conduits,[3] prostrate and extended along the road, their breath having been stopped by too great *indulgence in the* deliciousness of the water. And every where, along the open and public roads,[4] you might have seen powerless limbs, with

[1] Mingled with sounds of reproach.] Ver. 1244. *Mixtâ voce querelæ.* The voice of complaint or reproach being mixed with entreaties.

[2] One after another.] Ver. 1246. *Inque aliis alium.* "Alterum post alterum." *Wakefield.* One among others.

[3] Stretched at the public conduits.] Ver. 1264. *Silanos ad aquarum strata. Silanus* was a conduit or water-pipe, or other orifice for a stream; a word of uncertain derivation. Gessner thinks that heads of the Tullii, Marsyæ, Silani, *&c.*, were fixed over the conduits, which were accordingly named from them.

[4] Along the open and public roads.] Ver. 1266. *Per populi loca prompta viasque.*

half-dead bodies *of men*, horrible with squalor, covered with rags, and perishing for want of dressing; *there was* skin only on the bones,[1] *which was itself* now almost sunk away, by reason of disease of the viscera, and *overspreading* filth.

All the sacred temples of the gods, moreover, death had *now* crowded with carcasses; all the shrines of the divinities, in every part, stood filled with corpses; *for these were* places which the attendants of the temples had thronged with strangers. Nor, *indeed*, was the worship of the gods, or *their* divinities, much regarded; for present suffering overcame *religious considerations.*

Nor was the custom of sepulture,[2] with which that pious

[1] Skin only on the bones, &c.] Ver. 1269.

Pellis super ossibus una,
Visceribus tetris prope jam sordique sepulta.

I have rendered *sepulta* "sunk away," endeavouring to give some sense to the passage as it stands in Wakefield and Forbiger. "Pelle," says Wakefield, "visceribus inustis consolidatisque obrutâ et deperditâ." But in truth *visceribus* makes the passage nonsense; all other editors, except Wakefield, Forbiger, and Eichstadt, have *Ulceribus.*

[2] Nor was the custom of sepulture, &c.] Ver. 1277. "In these last verses the poet relates, that the Athenians were not content with polluting their holy places with dead bodies, but transgressed likewise all their laws concerning funerals, (which they had till then observed,) and buried their dead as they could, wherever they found room. * * * By the unanimous consent of all authors, the Athenians were of all people the most ceremonious in the funerals of their dead, whom they honoured even to the highest superstition. If any one neglected to pay the rites of burial to those who were slain in war, he was punished with death; and the pomp and expense of funerals grew at length to such excess among them, that Solon was forced to put a stop to it by laws; but when this plague was raging at Athens, no funeral rites were observed;—as the historian, from whom our poet has taken this passage, relates." *Commentary on Creech's Translation.*

Qualis Erechthonios pestis populata colonos,
Extulit antiquas per funera pacis Athenas,
Alter in alterius labens cum fata ruebat;
Nec locus erat artis medicæ; nec vota valebant;
Cesserat officium morbis, et funera deerant
Mortibus, et lacrymæ; fessus defecerat ignis,
Et coacervatis ardebant corpora membris.

Manilius, i. 882.

Through Erecthean lands when that plague stray'd,
And Athens waste by peaceful funerals laid;

people had always been accustomed to bury,[1] observed *longer* in the city. For the whole people, in perturbation, ran hither and thither;[2] and each in his sorrow buried his friend according to his means.

Dire poverty, too, with sudden impulse, prompted *men* to many *impious deeds;* for they placed their relatives, with loud outcries, on the funeral piles raised for others,[3] and applied torches *to them;* often even quarrelling, with great bloodshed, rather than the bodies should be left *unconsumed.*

> When each contracted other's death; then art
> No cure could find, nor prayers could help impart;
> Care to the sick, and funerals to the dead,
> Ev'n tears were wanting; those no mourners shed;
> The wearied flame did from its office cease;
> Heaps of fired bones burnt the dead carcasses.
>
> *Sir Edward Sherburne.*

[1] Had—been accustomed to bury.] Ver. 1278. *Consuerat humari.* The sense requires *humare*, which Creech gives in his interpretation. The people had been accustomed *to bury* (their dead), not *to be buried.*

[2] Ran hither and thither.] Ver. 1279. *Repedabat:* which Wakefield interprets *discursitabat.* Lambinus and Creech, whom Lachmann follows, give *trepidabat.*

[3] Funeral piles raised for others.] Ver. 1282. *Aliena rogorum—extructa.*

Thus abruptly ends the description of the plague, and the poem of Lucretius.

Much of the account of the pestilence, as is observed above, is taken from Thucydides. I have not thought it necessary to transcribe in the notes the passages of Thucydides which Lucretius imitates; the English reader may refer to the whole description in Mr. Dale's Thucydides; and the scholar has ample references in Lambinus and Creech.

Procopius has given a full account of the plague which began to spread through the world, and devastated the city of Constantinople, in the reign of Justinian; an account in which Gibbon says that he "has emulated the skill and diligence of Thucydides in his description of the plague at Athens." It is observable that he represents it, like that of Athens, as taking its rise from Egypt. "Ethiopia and Egypt," says Gibbon, (ch. xliii. *sub fin.*,) "have been stigmatized, in every age, as the great source and seminary of the plague. In a damp, hot, stagnating air, this African fever is generated from the putrefaction of animal substances, and especially from the swarms of locusts, not less destructive to mankind in their death than in their lives."

The assertion of Macrobius, (Sat. vi. 2,) that Virgil took the prin-

cipal colouring and features of his description of a pestilence among cattle (Georg. iii. 478—566) from Lucretius's picture of the Athenian plague, rests on very slight foundation. Virgil may have been induced to write his description in emulation of that of Lucretius; but very little that is actually copied will be found in it. In Ovid's description of the same Athenian pestilence, (Metam. vii. 523—613,) the attentive reader will find far more marks of imitation.

Silius Italicus (xiv. 580—617) also, like his great predecessors, gives a description of the plague which attacked the Roman army at the siege of Syracuse. Many of his points are taken from Lucretius, as in the following passage:

> Helpless the victims sunk; the tongue was parched;
> Cold perspiration o'er the trembling frame
> Flowed copious; while the tumid throat forbade
> The food's half-forced descent; a vehement cough
> Shook the vexed lungs; and from the arid mouth
> Fumed fiery breath, that ceaseless thirst proclaimed.
> The eyes, that scarce th' oppressive light could bear,
> Sunk in deep ghastly hollows by the side
> Of the sharp nose; foul bile, commixed with blood,
> Forth gushes from the stomach; the weak limbs,
> Fleshless and wasted, shrink to skin and bone.

The general features of pestilential destruction are also carefully detailed by Seneca in his Œdipus, Act i.

Thomson has a passage on the effects of pestilence, Summer, ver. 1026, *seq.*

Boccacio, in his description of the plague at Florence, seems to have had Thucydides in view.

If the reader wish to see more accounts of pestilence, in imaginative writers, he may consult Defoe's "History of the Plague;" Wilson's "City of the Plague;" Brockden Brown's "Arthur Mervyn;" Horace Smith's "Brambletye House;" Mrs. Shelley's "Last Man;" Ainsworth's "Old Saint Paul's."

LUCRETIUS

ON

THE NATURE OF THINGS.

METRICALLY TRANSLATED

BY JOHN MASON GOOD.

BOOK I.

PARENT of ROME! by gods and men beloved,
Benignant VENUS! thou, the sail-clad main
And fruitful earth, as round the seasons roll,
With life who swellest, for by thee all live,
And, living, hail the cheerful light of day:— 5
Thee, goddess, at thy glad approach, the winds,
The tempests fly: dedalian Earth to thee
Pours forth her sweetest flow'rets: Ocean laughs,
And the blue heavens in cloudless splendour decked.
For, when the Spring first opes her frolic eye, 10
And genial zephyrs long locked up respire,
Thee, goddess, then, th' aerial birds confess,
To rapture stung through every shivering plume:
Thee, the wild herds; hence, o'er the joyous glebe
Bounding at large; or, with undaunted chest, 15
Stemming the torrent tides. Through all that lives
So, by thy charms, thy blandishments o'erpowered,
Springs the warm wish thy footsteps to pursue:
Till through the seas, the mountains, and the floods,
The verdant meads, and woodlands filled with song 20
Spurred by desire each palpitating tribe
Hastes, at thy shrine, to plant the future race.
Since, then, with universal sway thou rul'st,
And thou alone; nor aught without thee springs,

Aught gay or lovely; thee I woo to guide 25
Aright my flowing song, that aims to paint
To MEMMIUS' view the ESSENCES OF THINGS:
MEMMIUS, my friend, by thee, from earliest youth,
O goddess! led, and trained to every grace.
Then, O, vouchsafe thy favour, power divine! 30
And with immortal eloquence inspire.
Quell, too, the fury of the hostile world,
And lull to peace, that all the strain may hear.
For peace is thine: on thy soft bosom he,
The warlike field who sways, almighty MARS, 35
Struck by triumphant Love's eternal wound,
Reclines full frequent: with uplifted gaze
On thee he feeds his longing, lingering eyes,
And all his soul hangs quivering from thy lips.
O! while thine arms in fond embraces clasp 40
His panting members, sovereign of the heart!
Ope thy bland voice, and intercede for ROME.
For, while th' unsheathed sword is brandished, vain
And all unequal is the poet's song;
And vain th' attempt to claim his patron's ear. 45
Son of the MEMMII! thou, benignant, too,
Freed from all cares, with vacant ear attend;
Nor turn, contemptuous, ere the truths I sing,
For thee first harmonized, are full perceived.
Lo! to thy view I spread the rise of things; 50
Unfold th' immortals, and their blest abodes:
How Nature all creates, sustains, matures,
And how, at length, dissolves; what forms the mass,
Termed by the learned, Matter, Seeds of Things,
And generative Atoms, or, at times, 55
Atoms primordial, as hence all proceeds.
Far, far from mortals, and their vain concerns,
In peace perpetual dwell th' immortal gods:
Each self-dependent, and from human wants
Estranged for ever. There, nor pain pervades, 60
Nor danger threatens; every passion sleeps;
Vice no revenge, no rapture virtue prompts.
Not thus mankind. Them long the tyrant power
Of SUPERSTITION swayed, uplifting proud
Her head to heaven, and with horrific limbs 65

Brooding o'er earth; till he, the man of Greece,
Auspicious rose, who first the combat dared,
And broke in twain the monster's iron rod.
No thunder him, no fell revenge pursued
Of heaven incensed, or deities in arms. 70
Urged rather, hence, with more determined soul,
To burst through Nature's portals, from the crowd
With jealous caution closed; the flaming walls
Of heaven to scale, and dart his dauntless eye,
Till the vast whole beneath him stood displayed. 75
Hence taught he us, triumphant, what might spring,
And what forbear: what powers inherent lurk,
And where their bounds and issues. And, hence, we.
Triumphant too, o'er SUPERSTITION rise,
Contemn her terrors, and unfold the heavens. 80
Nor deem the truths PHILOSOPHY reveals
Corrupt the mind, or prompt to impious deeds.
No: SUPERSTITION may, and nought so soon,
But Wisdom never. SUPERSTITION 'twas
Urged the fell GRECIAN chiefs, with virgin blood, 85
To stain the virgin altar. Barbarous deed!
And fatal to their laurels! AULIS saw,
For there DIANA reigns, th' unholy rite.
Around she looked; the pride of GRECIAN maids,
The lovely IPHIGENIA, round she looked,— 90
Her lavish tresses, spurning still the bond
Of sacred fillet, flaunting o'er her cheeks,—
And sought, in vain, protection. She surveyed
Near her, her sad, sad sire; th' officious priests
Repentant half, and hiding their keen steel, 95
And crowds of gazers weeping as they viewed.
Dumb with alarm, with supplicating knee,
And lifted eye, she sought compassion still;
Fruitless and unavailing: vain her youth,
Her innocence, and beauty; vain the boast 100
Of regal birth; and vain that first herself
Lisped the dear name of Father, eldest born.
Forced from her suppliant posture, straight she viewed
The altar full prepared: not there to blend
Connubial vows, and light the bridal torch; 105
But, at the moment when mature in charms,

While Hymen called aloud, to fall, e'en then,
A father's victim, and the price to pay
Of GRECIAN navies, favoured thus with gales.—
Such are the crimes that SUPERSTITION prompts! 110
And dost thou still resist us? trusting still
The fearful tale by priests and poets told?—
I, too, could feign such fables; and combine
As true to fact, and of as potent spell,
To freeze thy blood, and harrow every nerve.— 115
Nor wrong th' attempt. Were mortal man assured
Eternal death would close this life of woe,
And nought remain of curse beyond the grave,
E'en then religion half its force would lose;
Vice no alarm, and virtue feel no hope. 120
But, whilst the converse frights him, man will dread
Eternal pain, and flee from impious deeds.
Yet doubtful is the doctrine, and unknown
Whether, co-eval with th' external frame,
The soul first lives, when lives the body first, 125
Or boasts a date anterior: whether doomed
To common ruin, and one common grave,
Or through the gloomy shades, the lakes, the caves,
Of EREBUS to wander: or, perchance,
As ENNIUS taught, immortal bard, whose brows 130
Unfading laurels bound, and still whose verse
All Rome recites, entranced—perchance condemned
The various tribes of brutes, with ray divine,
To animate and quicken: though the bard,
In deathless melody, has elsewhere sung 135
Of ACHERUSIAN temples, where, nor soul
Nor body dwells, but images of men,
Mysterious shaped; in wondrous measure wan.
Here HOMER's spectre roamed, of endless fame
Possest: his briny tears the bard surveyed, 140
And drank the dulcet precepts from his lips.
Such are the various creeds of men. And hence
The philosophic sage is called t' explain,
Not the mere phases of the heavens alone,
The sun's bright path, the moon's perpetual change, 145
And powers of earth productive, but to point,
In terms appropriate, the dissevering lines

'Twixt mind and brutal life; and prove precise
Whence spring those shadowy forms, which, e'en in hours
Wakeful and calm. but chief when dreams molest, 150
Or dire disease, we see, or think we see,
Though the dank grave have long their bones inhumed.
Yet not unknown to me how hard the task
Such deep obscurities of GREECE t' unfold
In LATIN numbers; to combine new terms, 155
And strive with all our poverty of tongue.—
But such thy virtue, and the friendship pure
My bosom bears, that arduous task I dare;
And yield the sleepless night, in hope to cull
Some happy phrase, some well-selected verse, 160
Meet for the subject; to dispel each shade,
And bid the mystic doctrine hail the day.
For shades there are, and terrors of the soul,
The day can ne'er disperse, though blazing strong
With all the sun's bright javelins. These alone 165
To Nature yield, and Reason; and, combined,
This is the precept they for ever teach,
That NOUGHT FROM NOUGHT BY POWER DIVINE HAS RISEN.
But the blind fear, the superstition vain
Of mortals uninformed, when spring, perchance, 170
In heaven above, or earth's sublunar scene,
Events to them impervious, instant deem
Some power supernal present, and employed.—
Admit this truth, that NOUGHT FROM NOTHING SPRINGS,
And all is clear. Developed, then, we trace, 175
Through Nature's boundless realm, the rise of things,
Their modes, and powers innate; nor need from heaven
Some god's descent to rule each rising fact.
Could things from nought proceed, then whence the use
Of generative atoms, binding strong 180
Kinds to their kinds perpetual? Man himself
Might spring from ocean; from promiscuous earth
The finny race, or feathery tribes of heaven:
Prone down the skies the bellowing herds might bound,
Or frisk from cloud to cloud: while flocks, and beasts 185
Fierce and most savage, undefined in birth,
The field or forest might alike display.
Each tree, inconstant to our hopes, would bend

With foreign fruit: and all things all things yield.
Whence but from elemental seeds that act 190
With truth, and power precise, can causes spring
Powerful and true themselves? But grant such seeds,
And all, as now, through Nature's wide domain,
In time predicted, and predicted place,
Must meet the day concordant; must assume 195
The form innately stampt, and prove alone
Why all from all things never can proceed.
Whence does the balmy rose possess the spring?
The yellow grain the summer? or, the vine
With purple clusters, cheer th' autumnal hours? 200
Whence, true to time, if such primordial seeds
Act not harmonious, can aught here surveyed,
Aught in its season, rear its tender form,
And the glad earth protrude it to the day?
But, if from nought things rise, then each alike, 205
In every spot, at every varying month,
Must spring discordant; void of primal seeds
To check all union till th' allotted hour.
Nor space for growth would then be needful: all
Springing from nought, and still from nought supplied. 210
The puny babe would start abrupt to man;
And trees umbrageous, crowned with fruit mature,
Burst, instant, from the greensward. But such facts
Each day opposes; and, opposing, proves
That all things gradual swell from seeds defined, 215
Of race and rank observant, and intent
T' evince th' appropriate matter whence they thrive.
But matter thus appropriate, or e'en space
For growth mature, form not the whole required.
The timely shower from heaven must add benign 220
Its influence too, ere yet the teeming earth
Emit her joyous produce; or, the ranks
Of man and reptile, thence alone sustained,
May spring to life, and propagate their kinds.
Say rather, then, in much that meets the view, 225
That various powers combine, concordant all,
Common and elemental, as in words
Such elemental letters,—than contend,
That void of genial atoms, aught exists.

Why formed not Nature man with ample powers 230
To fathom, with his feet, th' unbottomed main?
To root up mountains with his mighty hands?
Or live o'er lapsing ages victor still?
Why, but because primordial matter, fixt
And limited in act, to all is dealt 235
Of things created, whence their forms expand.
And hence again we learn, and prove express,
Nought springs from nought, and that, from seeds precise,
Whate'er is formed must meet th' ethereal day.
Mark how the cultured soil the soil excels 240
Uncultured, richer in autumnal fruits.
Here, too, the latent principle of things,
Freed by the plough, the fertile glebe that turns
And subjugates the sod, exert their power,
And swell the harvest: else, spontaneous, all 245
Would still ascend by labour unimproved.
And as from nought the genial seeds of things
Can never rise, so Nature that dissolves
Their varying forms, to nought can ne'er reduce.
Were things destructible throughout, then all 250
Abrupt would perish, passing from the sight;
Nor foreign force be wanting to disjoin
Their vital parts, or break th' essential bond.
But since, from seeds eternal all things rise,
Till force like this prevail, with sudden stroke 255
Crushing the living substance, or within
Deep entering each interstice, to dissolve
All active, Nature no destruction views.
Were time the total to destroy of all
By age decayed,—say whence could VENUS' self 260
The ranks renew of animated life?
Or, if renewed, whence earth's dedalian power
Draw the meet foods to nurture, and mature?
Whence springs and rivers, with perpetual course,
The deep supply? or, ether feed the stars? 265
Whate'er could perish, ever-during time,
And rolling ages, must have long destroy'd.
But if, through rolling ages, and the lapse
Of ever-during time, still firm at base,
Material things have stood, then must that base 270

Exist immortal, and the fates defy.
  Thus, too, the same efficient force applied
Alike must all things rupture, if, within,
No substance dwelled eternal to maintain
In close, and closer, links their varying bonds. 275
E'en the least touch,—for every cause alike
Must break their textures, equal in effect,
If no imperishable power opposed,—
E'en touch were then irrevocable death.
But since, with varying strength, the seeds within 280
Adhere, of form precise, and prove express
Their origin eternal,—free from ill,
And undivided must those forms endure,
Till some superior force the compact cleave.
Thus things to nought dissolve not; but, subdued, 285
Alone return to elemental seeds.
  When, on the bosom of maternal EARTH,
His showers redundant genial ETHER pours,
The dulcet drops seem lost: but harvests rise,
Jocund and lovely; and, with foliage fresh, 290
Smiles every tree, and bends beneath its fruit.
Hence man and beast are nourished; hence o'erflow
Our joyous streets with crowds of frolic youth;
And with fresh songs th' umbrageous groves resound.
Hence the herds fatten, and repose at ease, 295
O'er the gay meadows, their unwieldy forms;
While from each full-distended udder drops
The candid milk spontaneous; and hence, too,
With tottering footsteps, o'er the tender grass,
Gambol their wanton young, each little heart 300
Quivering beneath the genuine nectar quaffed.
  So nought can perish, that the sight surveys,
With utter death; but Nature still renews
Each from the other, nor can form afresh
One substance, till another be destroyed. 305
  But come, my friend, and, since the muse has sung
Things cannot spring from, or return to nought,
Lest thou should'st urge, still sceptic, that no eye
Their generative atoms e'er has traced;
Mark in what scenes thyself must own, perforce, 310
Still atoms dwell, though viewless still to sense.

And, first, th' excited wind torments the deep;
Wrecks the tough bark, and tears the shivering clouds:
Now, with wide whirlwind, prostrating alike
O'er the waste champaign, trees, and bending blade; 315
And now, perchance, with forest-rending force,
Rocking the mighty mountains on their base.
So vast its fury!—But that fury flows
Alone from viewless atoms, that, combined,
Thus form the fierce tornado, raging wild 320
O'er heaven, and earth, and ocean's dread domain.
As when a river, down its verdant banks
Soft-gliding, sudden from the mountains round
Swells with the rushing rain—the placid stream
All limit loses, and, with furious force, 325
In its resistless tide, bears down, at once,
Shrubs, shattered trees, and bridges, weak alike
Before the tumbling torrent: such its power!—
Loud roars the raging flood, and triumphs still,
O'er rocks, and mounds, and all that else contends. 330
So roars th' enraged wind: so, like a flood,
Where'er it aims, before its mighty tide,
Sweeps all created things: or round, and round,
In its vast vortex curls their tortured forms.—
Though viewless, then, the matter thus that acts, 335
Still there is matter: and, to Reason's ken,
Conspicuous as the visual texture traced
In the wild wave that emulates its strength.
Next, what keen eye e'er followed, in their course,
The light-winged ODOURS? or developed clear 340
The mystic forms of cold, or heat intense?
Or sound through ether fleeting?—yet, though far
From human sight removed, by all confessed
Alike material; since alike the sense
They touch impulsive; and since nought can touch 345
But matter; or, in turn, be touched itself.
Thus, too, the garment that along the shore,
Lashed by the main, imbibes the briny dew,
Dries in the sunbeam: but, alike unseen,
Falls the moist ether, or again flies off 350
Entire, abhorrent of the red-eyed noon.

So fine the attenuated spray that floats
In the pure breeze; so fugitive to sight.
  A thousand proofs spring up. The ring that decks
The fair one's finger, by revolving years, 355
Wastes imperceptibly. The dropping shower
Scoops the rough rock. The plough's attempered share
Decays: and the thick pressure of the crowd,
Incessant passing, wears the stone-paved street.
E'en the gigantic forms of solid brass, 360
Placed at our portals, from the frequent touch
Of devotees and strangers, now display
The right hand lessened of its proper bulk.—
All lose, we view, by friction, their extent;
But, in what time, what particles they lose, 365
This envious Nature from our view conceals.
  Thus, too, both Time and Nature give to things
A gradual growth: but never yet the sight
That gradual growth explored; nor marked their fall,
Still gradual too, by age, or sure decay: 370
Nor traced what portions of incumbent rock,
Loaded with brine, the caustic wave dissolves.—
So fine the particles that form the world.
  Yet not corporeal is the whole produced
By Nature. In created things exists, 375
Search where thou wilt, an INCORPOREAL VOID.
This mark, and half philosophy is thine.
Doubtful no longer shalt thou wander: taught
Th' entire of things, and by our verse convinced.
And know this VOID is SPACE UNTOUCHED and PURE. 380
  Were SPACE like this vouchsafed not, nought could move:
Corporeal forms would still resist, and strive
With forms corporeal, nor consent to yield;
While the great progress of creation ceased.
But what more clear in earth or heaven sublime, 385
Or the vast ocean, than, in various modes,
That various matter moves? which, but for SPACE,
'Twere vain t' expect: and vainer yet to look
For procreative power, educing still
Kinds from their kinds through all revolving time. 390
  True, things are solid deemed: but know that those

Deemed so the most are rare and unconjoined.
From rocks, and caves, translucent lymph distils,
And, from the tough bark, drops the healing balm.
The genial meal, with mystic power, pervades 395
Each avenue of life; and the grove swells,
And yields its various fruit, sustained alone
From the pure food propelled through root and branch.
Sound pierces marble; through reclusest walls
The bosom-tale transmits: and the keen frost 400
E'en to the marrow winds its sinuous way.—
Destroy all vacuum, then, close every pore,
And, if thou canst, for such events account.
Say, why of equal bulk, in equal scale,
Are things oft found unequal in their poise? 405
O'er the light wool the grosser lead prevails
With giant force. But were th' amount alike
Of matter each contained, alike the weight
Would prove perpetual: for, from matter sole,
Flows weight, and moment, ever prone to earth: 410
While vacant space nor weight nor moment knows.
Where things surpoise, then, though of equal bulk,
There MATTER most resides: but where ascends
The beam sublime, the rising substance holds
A smaller share, and larger leaves the VOID. 415
Hence draws the sage his creed: in all produced
Finds vacuum still, and calls that vacuum SPACE.
But some there are such doctrines who deny:
And urge in proof, deceptive, that we wave
Not through imagined pores admits the race 420
With glitt'ring scales—but yields at once, and opes
The liquid path; and occupies, in turn,
The space behind the aureat fish deserts.
Thus, too, that all things act: the spot possessed
Exchanging sole, while each continues full. 425
Believe them not. If nought of space the wave
Give to its gilded tenants, how, resolve,
Feel they the power t' advance? and if t' advance
They know not, how can, next, the wave thus yield?—
Or matter ne'er can move, then, or within 430
Some VOID must mix through all its varying forms,
Whence springs alone the power of motion first.

When force mechanic severs, and, abrupt,
Drives two broad bodies distant, quick between
Flows the light air, and fills the vacuum formed. 435
But ne'er so rapid can the light air flow
As to forbid all void; since, step by step,
It still must rush till the whole space be closed.
Nor credit those who urge such bodies sole
Can part because the liquid air, compress'd 440
To closer texture, gives the needed space.
Such feeble reas'ners, in opposing VOID,
A double VOID confess: for, first, perforce,
A void they own, where void was none before,
Betwixt the substance severed; and bring next 445
A proof surmountless that the air itself
Thronged with a prior void: else how, to bounds
Of closer texture, could it e'er contract?
A thousand facts crowd round me: to the same
Converging all. But ample these, I ween, 450
Though but the footsteps of the mighty whole,
To fix thy faith, and guide thee to the rest.
For as the hound, when once the tainted dew
His nostrils taste, pursues the vagrant fox
O'er hills, and dales, and drags him from his lair; 455
So may'st thou trace from fact associate fact,
Through every maze, through every doubtful shade,
Till Truth's bright form, at length, thy labours crown.
Nor tardy be the toil, for much remains.
So oft, O MEMMIUS! from the sacred fount 460
By wisdom fed, so largely have I drank,
And such the dulcet doctrines yet untold,
That age may first unman us, and break down
The purple gates of life, ere the bold muse
Exhaust the boundless subject. Haste we, then, 465
Each pulse is precious, haste we to proceed.
Know, then, th' ENTIRE OF NATURE sole consists
Of SPACE and BODY: this the substance moved,
And that the area of its motive power.
That there is BODY, every sense we boast 470
Demonstrates strong: and, if we trust not sense,
Source of all science, then the mind itself,
Perplexed and hopeless, must still wander on

In reasoning lost, to every doubt a prey.
And were not SPACE, were vacuum not allow'd, 475
In nought could bodies, then, their powers display
Of various action: each compressing each
To motion fatal, as already sung.
Nor is there aught such vacant SPACE besides,
And MATTER close-embodied, can be traced 480
A substance forming discrepant from each.
Search where thou wilt, whate'er occurs to view,
Of bulk minute, or large, though e'en its form
Change with the hour, if tangible it prove,
This stamps it MATTER, and forbids all doubt. 485
But if intangible, throughout if still
To matter pervious, act where'er it may,
'Tis then void SPACE, and can be nought besides.
All things, moreo'er, a substance must evince
Acting, or suffering act; or, form the sphere 490
In which to act or suffer. But to act,
Or suffer action, must be MATTER'S sole;
While SPACE alone that needed sphere admits.
Nought, then, 'twixt SPACE and MATTER can subsist
Of INTERMEDIATE SUBSTANCE: nought be traced 495
By keenest efforts of th' external sense,
Or by the meditating mind deduced.
All else we meet with or conceive but these
Are mere CONJUNCTIONS, or EVENTS attached.
And know the learned by CONJUNCTIONS name 500
Those powers in each perpetual that inhere,
And ne'er can part till VOID or MATTER cease.
Thus heat to fire, fluidity to streams,
Weight to the rock, to all of MATTER touch,
And want of touch to SPACE. While Discord, Peace, 505
Oppression, Freedom, Poverty, and Wealth,
And aught that else, of matter, and of space
Lives independent, though engendered hence,
Are termed, and justly, by the wise EVENTS.
E'en TIME, that measures all things, of itself 510
Exists not; from the mind alone produced,
As, link by link, contemplating minute,
Things present, past, or future: for, of TIME,

From these disjoined, in motion, or at rest
Tranquil and still, what mortal can conceive? 515
Thus spring EVENTS to birth. The rape renowned
Of beauteous HELEN, or the fall of TROY,
Though deemed existences, yet of themselves
Existed never: on material things,
On place and persons acting, or coerced, 520
Alone dependent. These revolving years
Have long th' irrevocable doom assigned:
And rape and conquest, as EVENTS that claimed
From these existence, now exist no more.—
Had ne'er been formed the matter, or the space, 525
Whose power conjunctive gave those scenes to be;
No fire had e'er, from lovely HELEN'S eyes,
Glanced through the bosom of the TROJAN youth,
And kindled the fierce flames of storied war:
No giant horse the fell ACHAIAN throngs 530
Poured forth at night, subverting PRIAM'S realm.
Mark, then, how different FACTS exist and blend
From VOID or MATTER; and how justly termed
Of place and body the derived EVENTS.
Know, too, that bodies, in their frame consist, 535
Part, of primordial atoms uncombined,
And part combined and blending: these alone
Pervious and rare; while those so solid formed
No force create can sever, or dissolve.
Nor deem such solids doubtful: though so deemed 540
By sages oft, who plausibly object
That sound, that thunder, that the voice itself
Breaks through domestic walls: that rigid steel
Admits the blaze, and whitens: vitreous rocks
Melt in the fierce volcano: gold and brass 545
Forego their icy hardness, and alike
Yield in the fiery conflict, and dissolve:
That e'en the silver chalice, fill'd with lymph
Fervid or cold, unlocks its secret pores,
And warms, at once, or chills th' embracing hand. 550
Hence deem they matter pervious all, and void
Of solid substance. But attend, benign,
And, since right reason, and the frame of things

Demand the verse, the muse shall briefly prove
The seeds, the principles of matter all 555
Both solid, and eternal, whence alone
Springs the stupendous fabric of the world.
Of SPACE, of MATTER, as already sung,
Th' ENTIRE of things consists, by nature formed
Distinct and adverse; and existing pure 560
Each uncontrolled of each. Where matter dwells
Void space can ne'er be found, nor matter found,
Search where thou wilt, where space resides and reigns.
As space is vacant then, material seeds
Must solid prove, perforce, and free from void. 565
Thus, too, as vacuum dwells in all produced,
Some solid substance must that vacuum bound:
Nor aught of vacuum can created things
Be proved to enclose, if solids not exist,
Whose power alone can such enclosures form. 570
But solids must be matter; the prime seeds
Of all surveyed, harmonious in their act,
And undecayed when all decays around.
Were there no space, th' ENTIRE OF THINGS would prove
One boundless solid: and were nought conceived 575
Of viewless seeds, close filling, void of space,
Each spot possest, all then were vacuum blank.
Thus each from each, from matter space exists
Distinct and clear: since never all is void,
Nor ever full; but this from that preserved 580
By countless atoms acting though unseen.
These, as already sung, no powers can pierce:
O'er blows external, o'er each vain attempt
Of penetrative solvents, or aught else
Philosophy reveals, triumphant still. 585
For nought can break, of vacuum all devoid,
Or melt, or moulder, or within admit
Vapour, or cold, or power of pungent heat,
By which dissolves this fabric of the world.
'Tis vacuum lays the base: as this exists, 590
Augments, or lessens, things alone decay.
What then is solid, and from vacuum free,
Must undecayed, and still eternal live.
Were matter not eternal, ages since

All had returned to nothing whence it sprang, 595
And from that nothing all again revived.
But since from nothing nought can ever rise,
As proved above, nor aught to nothing shrink,
Seeds there must be of ever-during date,
To which, perpetual, things dissolve, or whence 600
Flows the fresh pabulum that all repairs.
But seeds thus simple must be solid too;
Else unpreserved through countless ages past,
And useless to recruit th' exhausted world.
Else friction, too, had injured: each by each 605
Through myriad years abraded, and reduced,
Till nought conceptible had lived to rear,
Each in its time, the progenies of earth:
For all is wasted easier than renewed.
And hence, had all been thus disturbed, dissolved, 610
And frittered through the long anterior lapse
Of countless ages, future time in vain
Would strive the ruined fragments to repair.
But what more obvious than that bounds exist
To matter decompounding, primal seeds 615
To forms defined coercing; since again
All springs to birth, harmonious, kinds from kinds,
True to their times, and perfect in their powers?
Yet, though the principles of matter thus
Prove firm and solid, its component forms, 620
As air, earth, vapour, or translucent stream,
May still be soft and pliant, as combined,
E'en from their birth, with less, or larger void.
But had those principles themselves been reared
Pliant and soft, then whence the sturdy steel, 625
The close-compacted flint, or aught besides,
Of equal texture, traced through Nature's realm?
Thus simple solids must be still confest;
And all be soft, or rigid, as of these
In more or less concentrate mode composed. 630
To all has Nature given a bound precise
Of being and perfection; and promulged,
To every varying rank, her varying laws;
Urging to this, from that restraining firm.
Nought suffers change: the feathery tribes of heaven 635

Bear, on their glossy plumes, through every class,
The same fixt hues that first those classes stamped.
Hence matter too, through all its primal seeds,
Is proved immutable: for if, o'ercome
By aught of foreign force, those seeds could change, 640
All would be doubtful; nor the mind conceive
What might exist, or what might never live:
Nor why, decide, such variance in their powers,
And final terms of life, or instinct strong,
Through every age, still urging every race 645
To each pursuit, each action of their sires.
Know, too, each seed, each substance is composed
Of points extreme no sense can e'er detect:
Points that, perforce, minutest of themselves,
To parts can ne'er divide: nor self-educed, 650
Nor, but as formed, existing, else destroyed.
Parts such can hold not: each the first, pure part,
Itself, of other substance: which, when joined
Alone by kindred parts, in order due,
Forms, from such junction, the prime seeds of things. 655
But e'en such parts, though by the mind as parts
Conceived, disjoined can ne'er exist; and thence
Adhere by firm, indissoluble bond.
Thus seeds are simple solids, formed compact
Of points extreme, that never can recede: 660
Not lab'ring jointly to produce some end,
But potent from simplicity alone,
And hence eternal: equally unprone
To waste or sever; and by nature kept
To feed the suffering fabric of the world. 665
Did no such points exist, extreme and least,
Each smallest atom would be, then, combined
Of parts all infinite; for every part
Parts still would boast, dividing without end.
And, say, what difference could there, then, subsist 670
'Twixt large and small? for though th' ENTIRE OF THINGS
Should infinite be deemed, each smallest speck
Still parts as infinite would hold embraced.
But since at this the reasoning mind revolts,
Then must it own, o'erpowered, that points exist 675
Least by their nature, and of parts devoid:

And solid, hence, and of eternal date.
  Hence seeds arise, the last, least parts conceived
Of actual being: the extremest points
To which creative Nature all resolves. 680
Which, if not least, if still of parts possest,
Could ne'er, with close exactitude, renew
The universal frame: all, all would rise
Of weight diverse, and ever varying form,
Casual in tie, in motion undefined. 685
  Yet should we grant that matter, without end,
For ever wastes; e'en then, from earliest time,
Some matter must have triumphed undecayed,
Cohering still: but what can thus cohere,
What brave the unnumbered repercussions felt 690
Through ages now evolved, can ne'er decay:
Alike the future conquering as the past.
  Hence those who deem the fabric of the world
Educed from FIRE, itself the source of all,
Far wander from the truth. Thus deemed the sage, 695
Chief of his sect, and fearless in the fight,
Famed HERACLITUS; by the learn'd esteemed
Of doubtful phrase, mysterious; but revered
By crowds of GRECIANS, flimsy, and untaught.
For such th' obscure applaud; delighted most 700
With systems dark, and most believing true
The silver sounds that charm th' enchanted ear.
But whence, I ask, if all from FIRE proceed
Unmixed and simple, spring created things
So various in their natures? Urge not here 705
That fire condenses now, and now expands;
For if the same, divided or entire,
Its parts condensed a heat can only prove
More fierce; and less when rarefied, and thin.
Still all is FIRE. Nor canst thou e'er conceive 710
From fire that aught can spring but fire itself.
Much less, in fire made dense alone, or rare,
Trace the vast variance of created things.
Dense, too, and rare a vacuum must imply,
As urged already; yet full well convinced 715
What straits surround them if a void exist,
Such sages doubt, but, doubting, still deny:

Fearful of danger, yet averse from truth.
Such, too, reflect not that from things create,
Should void withdraw, the whole at once were dense, 720
One solid substance all, and unempowered
Aught from itself t' eject, as light, and smoke
Flies from the purple flame; evincing clear
Its parts unsolid, and commixt with void.
But should it still, perchance, be urged, that fires 725
Perish by junction, and their substance change,
Then must that changing substance waste to nought;
And thus from nought th' ENTIRE of nature spring.
For what once changes, by the change alone
Subverts immediate its anterior life. 730
But still, victorious, something must exist,
Or all to nought would perish; and, in turn,
From nought regerminate to growth mature.
Yet though, most certain, things there are exist
That never change, the seeds of all surveyed, 735
Whose presence, absence, or arrangement new
That ALL new-models, certain 'tis, alike,
Those seeds can ne'er be FIRE. For what avails
Such absence, presence, or arrangement new
Of igneous matter, if the whole throughout 740
Alike be igneous? Change howe'er it may,
Through every variance all must still be flame.—
Ask'st thou whence fire proceeds then? As I deem,
From certain seeds to certain motions urged,
Or forms, or combinations; which, when changed, 745
Change too their nature; and, though yielding fire,
Not fire resembling, or aught else perceived
By human sense, or tangible to touch.
To hold, moreo'er, as HERACLITUS held,
That all is fire, and nought besides exists 750
Through Nature's boundless fabric, is to rave.
T' oppose the mental sense, erroneous oft,
To sense external, whence all knowledge flows,
And whence himself first traced that flame exists.
To sense he trusts, when sense discloses fire, 755
And yet distrusts in things disclosed as clear.
Can there, in man, be conduct more absurd!—
Where shall we turn us? Where, if thus we fly

Those senses chief that sever true from false?—
  Why, rather, too, should all that else exists 760
Be thus denied, and fire alone maintained,
Than fire denied, and all maintained besides?
Tenets alike preposterous and wild.
Hence those, in FIRE, who trace the rise of things,
And nought but FIRE; or those for AIR who strive 765
As source of all; or those the dimpling STREAM
Who fondly fancy; or the ponderous EARTH,
For each has armed its champions in its turn,
Alike wide wander from unerring truth.
  Nor wanders less the sage who AIR with FIRE 770
Would fain commix, or limpid STREAM with EARTH;
Or those the whole who join, FIRE, ETHER, EARTH,
And pregnant SHOWERS, and thence the world deduce.
Thus sung EMPEDOCLES, in honest fame
First of his sect; whom AGRIGENTUM bore 775
In cloud-capt SICILY. Its sinuous shores
Th' IONIAN main, with hoarse, unwearied wave,
Surrounds, and sprinkles with its briny dew:
And, from the fair ÆOLIAN fields, divides
With narrow frith that spurns the impetuous surge. 780
Here vast CHARYBDIS raves: here ÆTNA rears
His infant thunders, his dread jaws unlocks,
And heaven and earth with fiery ruin threats.
Here many a wonder, many a scene sublime,
As on he journeys, checks the traveller's steps; 785
And shows, at once, a land in harvests rich,
And rich in sages of illustrious fame.
But nought so wonderous, so illustrious nought,
So fair, so pure, so lovely, can it boast,
EMPEDOCLES, as thou! whose song divine, 790
By all rehearsed, so clears each mystic lore,
That scarce mankind believed thee born of man.
Yet e'en EMPEDOCLES, and those above,
Already sung, of far inferior fame,
Though doctrines frequent from their bosoms flowed 795
Like inspiration, sager and more true
Than e'er the PYTHIAN maid, with laurels crowned,
Spoke from the tripod at APOLLO's shrine;
E'en these mistook the principles of things,

And greatly wandered in attempt so great. 800
And, first, they deemed that motion might exist
From VOID exempt: that things might still be rare,
Still soften, as earth, ether, fire, or fruits,
Or e'en the ranks of animated life,
Though VOID commixed not with their varying frames. 805
Then, too, they held no final term ordained
To comminuting atoms: which, through time,
Still crumbled on, and never could be least.
Though from such points as sense itself surveys,
Extreme and least, conjecture we may form 810
Of points extreme, impalpable to sight,
Least in themselves, that never can divide.
With them, moreo'er, the seeds of things were formed
Soft, and unsolid: but whate'er is soft,
Whate'er unsolid, as at first they spring 815
From other substance, must perforce decay.
So all to nought would perish, and again
From nought regerminate to growth mature:
Doctrines the muse already has disproved.
Such seeds, too, must be foes; created each 820
To each adverse; and hence can never meet
But sure perdition waits: or, chance, they part,
Disperst abrupt, as, in contending storms,
Wind, rain, and thunder scatter, and are lost.
But, from such four-fold foes, could all things spring, 825
And, sprung, to such dissolve—why rather term
Those jarring powers the primal seeds of things,
Than things of them? since, in alternate course,
Each flows from each: th' alternate form is seized,
Th' alternate nature, through perennial time. 830
Yet could'st thou deem such powers adverse might blend,
And earth with fire, with ether lymph commix,
And still retain their natures unimpaired;
Whilst thus retained, no living form could rise
Traced through creation, animate, or void, 835
As springs the verdant shrub, of reasoning soul.
For each its nature, through the varying mass,
Would still evince, and earth with air commix,
In ceaseless strife,—and fire with crystal lymph.
But primal seeds, whene'er the form of things 840

Mutual they gender, must, perforce, assume
An unobtrusive nature, close concealed,
Lest aught superior rise, of power adverse,
And thus th' harmonious union be destroyed.
Such sages, too, from heaven, and heaven's bright fires
Maintain that all proceeds: that fire drawn hence 846
Converts to ether, ether into showers,
And showers benign to earth: and hence again,
That all from earth returns: first liquid dew,
Then air, and heat conclusive; changing thus, 850
In ceaseless revolution, changing thus
From heaven to earth, from earth to heaven sublime:
A change primordial seeds could ne'er sustain.
So something still must, void of change, exist;
Or all would perish, all to nought return; 855
For what once changes, by the change alone
Subverts immediate its anterior life.
Since, then, as sung above, these all commute
Each into each, some seeds must still be owned
That ne'er can change, or all to nought would waste. 860
Hold rather, then, such seeds exist, endowed
With powers so curious that, as now combined,
If fire they form, combine them but anew,
Add, or deduct, give motion, or subtract,
And all is air; and changing thus, and changed, 865
That things from things perpetual take their rise.
Nor urge, still sceptic, that each hour displays
All life protruded from the genial EARTH:
Fed by the balmy AIR; by heaven's own FIRE
Matured; and saved from pestilence and death 870
Alone by SHOWERS benignant: and that hence
Man, beast, and herbs alike exist, and thrive.
The fact we own: we own from solid food,
And crystal streams, man draws his daily breath,
Of nerve, of bone, of being else deprived: 875
But, owning, add, the compounds meet for man,
For brute, for herbage, differ in their kinds,
By different tastes discerned: and differ thus,
And only thus, as formed from various seeds,
To all things common, but in various modes 880
Combined, and fitted to each rising want.

Nor small of import are the modes diverse
In which those seeds approach, recede, or blend:
Since heaven, and earth, and suns, and seas immense,
Herbs, instinct, reason, all are hence derived: 885
The mode but changed, the matter still the same.
Thus, though the lines, these doctrines that recite,
Flow from the same fixt elemental types,
Yet line from line, in sense, in sound compared,
Egregious differs. Re-arranged alone, 890
Such the vast power by graphic types possest!
Start not when told, then, that the seeds of things
Boast powers superior, and can all create.
From such mistakes, detected and exposed,
Now turn we: and in order next survey 895
Those docrines first the GRECIAN schools imbibed
From sapient ANAXAGORAS, by them
Termed HOMŒOMERY; a phrase ourselves,
In tongue deficient, never can translate.
But these its institutes: that bone from bones, 900
Minute, and embryon, nerve from nerves arise,
And blood from blood, by countless drops increased.
Gold, too, from golden atoms, earths concrete
From earths extreme; from fiery matters fire,
And lymph from limpid dew. And thus throughout 905
From primal kinds that kinds perpetual spring.
Yet VOID he granted not in aught create,
Nor POINTS EXTREME that never can divide.
In both erroneous, and with those deceived
Classed in our numbers, and opposed above. 910
Too feeble, too, the rudiments he chose,
If rudiments they be, that hold, at once,
The powers of things, and form the things themselves.
All toil alike, and perish void of aid:
For, when the hour of dissolution draws, 915
Say, which can baffle the dread fangs of death?
Can ether, lymph, or fire? can nerve, or bones?
In each the strife were vain: since all produced,
Surveyed, or viewless, impotent alike,
Must yield to fate, and perish unredeemed. 920
But things produced to nought can never fall,
Or fallen, regerminate, as proved above.

Food rears the body, and its growth sustains:
But well we know its tendons, nerves, and blood,
Hence all matured, are foreign and unlike. 925
If, then, each food be compound, if commixt
With miniatures of all, of blood and nerve,
Of bone and veins; each food compact, or moist,
Of parts unlike must then itself consist;
Of bone, of blood, of tendon, vein, and nerve. 930
Thus all things spring from earth: but if in earth
All lurk enveloped, earth of forms consists
Strange, and discordant, panting for the day.
Change still the picture, and the same still flows:
In timbers, thus, if smoke, flame, ashes blend, 935
Then, too, those timbers hostile parts comprise.
But, here, the ready answer, framed of yore,
By him, the founder of the system, springs:
That, though in all things all things lurk commixt,
What most prevails, what boasts the largest share, 940
Lies superficial, and is noticed chief.
Fruitless remark, unsolid, and untrue.
For still, at times, when crushed to dust minute
Beneath the pond'rous mill-stone's mighty orb
The crumbling corn with human blood must weep, 945
Or aught besides of fluid found in man,
And stain with hues obscene: and still, at times,
Each herb unfold the balmy milk so sweet,
That swells the fleecy flock, or odorous kine.
The furrowed glebe, the labouring plough beneath, 950
Must, too, develope, in its secret womb,
Plants, fruits, and foliage, oft dispersed, and hid:
And, to the woodman, the cleft stock disclose
With ashes smoke, and smoke commixt with fire.
These, facts deny: in things things ne'er exist; 955
But seeds of things, in various modes arranged,
Various themselves: whence rises all surveyed.
But should'st thou urge that oft beneath the storm,
When rubbed by many a repercussion rude,
Branch against branch, the forest's topmost height 960
Has blazed from tree to tree; the fact we grant:
Not, with each trunk, that native fires combine:
But that perpetual friction quick collects

Their seeds dispersed; hence gathering ten-fold force,
And flame engendering. For could fire itself 965
A part constituent of the forest form,
No hour could hide the mischief; every tree
Would blaze, and burn till boundless ruin reigned.
  See, then, as earlier sung, how much imports
Th' arrangement, motion, magnitude, and form 970
Of primal seeds combined: and how the same,
Transposed but little, fuel quick convert
To flame, bright blazing up the swarthy flue:
As FLUE and FUEL, terms of different sound,
Of different sense, their letters but transposed, 975
Each into each converts with magic speed.
  But should'st thou urge that all things still may flow
From primal seeds, and yet those seeds possess
The form, the nature of the things themselves;
The scheme falls self-destroyed.—For then, must seeds 980
Hold powers adverse; and laugh, and shake their sides,
While tears of anguish down their cheeks distil.
  Come, now, and mark perspicuous what remains.
Obscure the subject: but the thirst of fame
Burns all my bosom; and through every nerve 985
Darts the proud love of letters, and the muse.
I feel th' inspiring power; and roam resolved
Through paths PIERIAN never trod before.
Sweet are the springing founts with nectar new;
Sweet the new flowers that bloom: but sweeter still 990
Those flowers to pluck, and weave a roseate wreath,
The muses yet to mortals ne'er have deigned.
With joy the subject I pursue; and free
The captived mind from Superstition's yoke.
With joy th' obscure illume; in liquid verse, 995
Graceful, and clear, depicting all surveyed:
By reason guided. For as oft, benign,
The sapient nurse, when anxious to enforce
On the pale boy, the wormwood's bitter draught,
With luscious honey tints the goblet's edge, 1000
Deceiving thus, while yet unused to guile,
His unsuspecting lip; till deep he drinks,
And gathers vigour from the venial cheat:
So I, since dull the subject, and the world

Abashed recoils, would fain, in honeyed phrase, 1005
Tuned by the muses, to thine ear recite
Its vast concerns; if haply I may hope
To fix thine audience, while the flowing verse
Unfolds the nature, and the forms of things.
Taught then, already that material seeds 1010
Are solid, and o'er time triumphant live,
Attend, benignant, while we next decide
Their number, or if infinite; and tell,
Since VOID throughout exists, assigning space
For place and motion, if th' ENTIRE of things 1015
Be bounded, or unfathomed, and immense.
Th' ENTIRE of things, then, bounds can never know:
Else parts possest of farthest and extreme.
But parts can only be extreme, beyond
Where other substance springs, those parts extreme 1020
Binding, though sense the limit ne'er can trace.
If, then, some other substance rise, the first
Forms not th' ENTIRE of things. Whate'er it be
That other substance still must part compose.
Vain too is distance: the vast whole alike 1025
To all extends, embracing, and embraced.
Yet grant th' ENTIRE of things of bound possest.
Say, to what point shall yon keen archer, placed
E'en on its utmost verge, his dart direct?
Shall aught obstruct it, or the path be clear? 1030
Take which thou wilt: some substance choose, possest
Of power t' impede, and check its rapid race:
Or let it fly unconquered, nor restraint
E'en once encounter: thou must still confess
Th' ENTIRE of nature nought of limit knows. 1035
Throughout the dart I'll chase; and when, at length,
Th' acceded bound is gained, I'll still demand
What yet obstructs it; still new proofs adduce
That the vast whole is boundless; and that flight
Still beyond flight for ever might be urged. 1040
Were, too, th' ENTIRE of nature thus confined,
Thus circumscribed precise, from its own weight
Long since, all matter to the extremest depth
Had sunk supine: nor aught the skies beneath,
Nor skies themselves, with countless stars adorned 1045

And sun's unsuffering splendour, had remained.
Down, down th' accumulated mass had fallen
From earliest time, devoid of power to rise.
But nought of rest supine material seeds
Evince through nature; since no depth exists 1050
Extreme, and fathomable where those seeds
Might fix collected in inert repose.
All, all is action: the vast whole alike
Moves in each part; and, from material seeds,
Draws, undiminished, its eternal food. 1055
  Things, to the sense, are circumscribed by things.
Air bounds the hills, and hills the liquid air:
Earth ocean, ocean earth: but the vast whole
What fancied scene can bound? O'er its broad realm,
Immeasured, and immeasurably spread, 1060
From age to age resplendent lightnings urge,
In vain their flight perpetual; distant, still,
And ever distant from the verge of things.
So vast the space on opening space that swells,
Through every part so infinite alike. 1065
  Ask thy own reason. It will prove at once
Th' ENTIRE of nature never can have bounds.
VOID must perforce bound MATTER, MATTER VOID;
Thus mutual, one illimitable whole
Forming for ever. For were each of each 1070
Free and unshackled, uncombined, and pure
In their own essence, not one short-lived hour
Could earth, or ocean, the refulgent fane
Of heaven sublime, or mortal forms, or those
The gods themselves inhabit, then subsist. 1075
Freed from all order, disarranged, and rude,
Through boundless vacuum the drear mass of things
Would quick be borne: or, rather, nought had risen
From the crude chaos, joyless, and inert.
For never, doubtless, from result of thought, 1080
Or mutual compact, could primordial seeds
First harmonize, or move with powers precise.
But ever changing, ever changed, and vext,
From earliest time, through ever-during space,
With ceaseless repercussion, every mode 1085
Of motion, magnitude, and shape essayed;

At length th' unwieldy mass the form assumed
Of things created. Persevering, thus,
Through many an age, unnumbered springs the deep
Feed with perpetual tides: by the warm sun 1090
Sustained, and cherished, earth renews her fruits,
And man, and beast survive; and ether glows
With living lights innum'rous: scenes throughout
'Twere vain t' expect, from all eternal time,
Had no primordial seeds, in stores immense, 1095
Been ever nigh to renovate the world.
For as, of food deprived, the languid frame
Of man must perish, so th' ENTIRE OF THINGS
Must instant cease, should once primordial seeds
Their aid withhold, or deviate in their course. 1100
Nor deem from mutual impulse, things with things
Can sole their forms preserve; th' eternal seeds
May, hence, be oft restrained, and e'en perchance,
Their flight delayed, till, from th' exhaustless store,
Fresh seeds arrive the fainting frame to feed: 1105
But from concussion, frequent, they rebound,
Dissolve all tie, and leave to transient rest
The common matter whence each substance springs.
Hence must incalculable seeds exist
Ceaseless in act; and the vast whole derive 1110
Alone from boundless matter impulse due.
But fly, O MEMMIUS, fly the sect deceived,
Who teach that things, with gravitation firm,
To the vast centre of th' ENTIRE, alike,
Unerring press: the world who fain would prove 1115
Void of external impulse, may subsist,
And nought its post desert, profound, or high,
Since of such gravitating power possest.
For canst thou deem that aught may thus sustain,
And poise itself? that aught of solid weight, 1120
Placed at earth's utmost depth, could upwards strive
Reversed; and to the surface—(in the stream
As spreads the downwards shadow)—still adhere?
For thus such sages hold: thus man, and beast
Subsist, they teach, inverted, earth beneath: 1125
From their firm station, down their deeper skies
As unexposed to fall, as towards the heavens

Ourselves to mount sublime: by them the sun,
When night to us unfolds his stars, surveyed;
And equal measuring, in alternate course, 1130
With us, their months, their darkness, and their day.
Such are the specious fancies error feigns,
In idle hour, to minds perverse and vain.
Where all is infinite, what spot precise
Can e'er be central? or were centre owned, 1135
Why towards such spot should matter rather tend,
Than elsewhere more remote, and deeper still?
For vacant space, through every part alike,
Central or not, must yield to things compact,
And pond'rous, as their varying weight compels; 1140
Nor through the boundless VOID one point exists
Where things may rest, as if of weight deprived.
No power it boasts t' uphold; but still recedes,
As Nature prompts, and opes the needed path.
Hence, by the love alone of centre struck, 1145
Th' harmonious frame of things could ne'er be formed.
Moreo'er such sages urge not that the whole
Strives towards the centre equal; but terrene
Alone, and fluid matters; the deep main,
The mountain cataract, and the forms produced 1150
From earth Dedalian: while the breezy air,
And the light flame, far from such centre stray,
Through ether trembling, and, with lambent fire,
Feeding, through time, the sun's refulgent blaze;
As feeds maternal earth the myriad forms 1155
Of herbs, and trees, and animated life,
From her own bosom nurtured, and sustained.
Thus, too, they teach that heaven, with bound sublime,
Encircles all things, lest the world's wide walls,
And all enveloped, volatile as flame, 1160
Burst every bond, and dissipate, and die:
Lest heaven in thunders perish, and below
The baseless earth forsake us, downward urged:
And loose, and lifeless, man's dissev'ring frame,
Mixt with the rushing wreck of earth, and skies, 1165
Waste through all space profound; till nought remain,
Nought, in a moment, of all now surveyed,
But one blank VOID, one mass of seeds inert.

For once to act, when primal atoms fail,
Fail where they may, the doors of death are ope, 1170
And the vast whole unbounded ruin whelms.
These subjects if, with trivial toil, thou scan,
Each, each illuming, midnight shall no more
Thy path obstruct; but Nature's utmost depths
Shine as the day: so things irradiate things. 1175

BOOK II.

How sweet to stand, when tempests tear the main,
On the firm cliff, and mark the seaman's toil!
Not that another's danger soothes the soul,
But from such toil how sweet to feel secure!
How sweet, at distance from the strife, to view 5
Contending hosts, and hear the clash of war!
But sweeter far on Wisdom's height serene,
Upheld by Truth, to fix our firm abode;
To watch the giddy crowd that, deep below,
For ever wander in pursuit of bliss; 10
To mark the strife for honours, and renown,
For wit and wealth, insatiate, ceaseless urged,
Day after day, with labour unrestrained.
O wretched mortals!—race perverse and blind!
Through what dread dark, what perilous pursuits, 15
Pass ye this round of being!—know ye not
Of all ye toil for Nature nothing asks,
But for the body freedom from disease,
And sweet, unanxious quiet, for the mind?
And little claims the body to be sound: 20
But little serves to strew the paths we tread
With joys beyond e'en Nature's utmost wish.
What though the dome be wanting, whose proud walls
A thousand lamps irradiate, propt sublime
By frolic forms of youths in massy gold, 25
Flinging their splendours o'er the midnight feast:
Though gold and silver blaze not o'er the board,

Nor music echo round the gaudy roof?
Yet listless laid the velvet grass along
Near gliding streams, by shadowy trees o'er-arched, 30
Such pomps we need not; such still less when spring
Leads forth her laughing train, and the warm year
Paints the green meads with roseat flowers profuse.
On down reclined, or wrapped in purple robe,
The thirsty fever burns with heat as fierce 35
As when its victim on a pallet pants.
Since, then, nor wealth, nor splendour, nor the boast
Of birth illustrious, nor e'en regal state
Avails the body, so the free-born mind
Their aid as little asks. Unless, perchance, 40
The warlike host thou deem, for thee arrayed
In martial pomp, and o'er the fiery field
Panting for glory; and the gorgeous fleet,
For thee unmoored, and ardent,—can dispel
Each superstitious terror; from the breast 45
Root out the dread of death, and lull to peace
The cares, the tumults that distract thy soul.
But if all this be idle, if the CARES,
The TERRORS still that haunt and harass man,
Dread not the din of arms—o'er kings and chiefs 50
Press unabashed, unawed by glittering pomp,
The purple robe unheeding—canst thou doubt
Man pants for these from poverty of mind,
Wandering in darkness, and through life misled?
For as the boy, when midnight veils the skies, 55
Trembles, and starts at all things, so, full oft,
E'en in the noon men start at forms as void
Of real danger as the phantoms false
By darkness conjured, and the school-boy's dread.
A terror this the radiant darts of day 60
Can ne'er disperse: to truth's pure light alone,
And wisdom yielding, intellectual suns.
Come, then, and mark how seeds primordial form
Created things, and how, when formed, dissolve:
Their force, their action, whence, and power to move, 65
Pass, and repass, through all th' immense of space:
Benign attend, while thus the muse explains.
Doubtless no substance boasts a bond within

Indissoluble, since each gradual wastes,
And, in the lapse of time, flies off entire, 70
By age o'erpowered. Yet the great mass of things
Still meets the view uninjured, from the stores
Sustained of primal atoms. These, as oft
Their punctual flight they take, each form decrease,
And, as they join, augment: hence things attain 75
Their growth mature, and thence their sure decay.
Thus, void of rest, the changeful world renews,
And man on man lives mutual; nations thus
Flourish, or fade; a few brief years roll round,
And sire to son, through every reasoning rank, 80
Yields, like a racer o'er the busy course,
His lamp of life, and instant disappears.
Who deems primordial atoms e'er can rest,
And, resting, urge through matter motion still,
Far wanders from the truth. Primordial seeds, 85
Through space unfathomed as their flight they wing,
From their own gravitating power must pass,
Or blows extrinsic; each o'er each, alike,
Casual prevails: for oft the mass of seeds
That prone descends, with seeds repugnant meet 90
In contest tough, and distant far rebound.
Nor wondrous this, of firmest texture formed,
And nought t' obstruct the retro-cursive flight.
And though thou trace the seeds unequal heaped
Of primal matter, still, reflect, th' entire 95
Knows nought of bottom, nought of spot profound
Where they may rest collected: space throughout
Boundless exists, as, in our earlier verse,
Decisive proved, on every side immense.
Since, then, primordial seeds through space profound
Repose can never know: but rather, urged 101
To ceaseless motions, varying and adverse,
By the rude conflict part far off rebound,
And part with speed unite, the severing blow
Surmounted soon. Hence those, through trivial space 105
Briefly repelled, the vigorous bond scarce broke,
With quick reunion intertwining strong,
Form the rude base of flints, and rigid steel,
And matters firm alike: while those beyond,

Far wandering through the void, of feebler link 110
Mutual possest, the liquid air create,
And the pure light the sun perpetual pours.
Nor these the whole compose. For seeds there are
That through the boundless void for ever stray,
Of social bond abhorrent, and in turn 115
Refused all compact in the frame of things:
Not unresembling, if aright I deem,
Those motes minute that, when th' obtrusive sun
Peeps through some crevice in the shuttered shade,
The day-dark hall illuming, float amain 120
In his bright beam, and wage eternal war.
There may'st thou view them, now in crowds combine,
Now part discordant, o'er the restless scene
Urging the pigmy battle; and may'st hence
Learn what vast contests oft mid primal seeds, 125
Ceaseless, prevail, through boundless space propelled.
Thus things minute instruct us, and unfold
The laws, at times, of things momentous most.
Such motes, moreo'er, and let the sage remark
Impress thy judgment, agitated thus 130
In the pure sun-beam, from the strife alone
Prove, in their primal seeds, some motion lurks
Unseen, and secret, whence the pigmy mass
Draws motion first. For oft the curious eye
Sees the light goss, by viewless force subdued, 135
Turn from the path selected, backwards urged,
Now here, now there, through every point propelled.
Such the perplexing power of primal seeds.
From seeds all motion springs; by impulse hence
Through molecules minute of seeds conjoined, 140
Nearest in power, protruded, though unseen.
Hence urged again, in turn, through things create
Of ampler form, till soon the sense itself
The congregated action marks distinct.
As in the lucid beam's light woof we trace 145
Still motion visual, though unseen its source.
Nor small the motive power of primal seeds.
This, MEMMIUS, should'st thou doubt, we thus confirm:
When first Aurora, o'er the dewy earth,
Spreads her soft light, and through the pathless grove 150

A thousand songsters ope their liquid throats,
All ether charming—sudden we survey
Th' effusive sun, as with a garment, deck
With his own radiance all created things;
Instant in speed, unbounded in his blaze. 155
But the bright fluid, the pure stream he throws,
Flows not without resistance; many a wave,
Through space profound, ethereal checks its flight;
And many a self-engendered power perverse,
Reared from its complex frame: perpetual hence 160
Lags the light fluid, doomed to double strife.
But primal atoms, firm and solid sole
From pure simplicity, when through void space
Free and unchecked their easy course they wing,
One in themselves, at once their goal attain. 165
Hence than the rapid light more rapid still
Rush they, in equal hour through ampler space
Urged, than the beams that gild the glowing vault.
No pause for council need they, no delay,
Nor deep research to sever right from wrong, 170
Or prove what path their duty bids pursue.
  Yet some there are, untaught, who dare contend
Primordial matter ne'er without the gods
Thus, in nice symmetry, to please mankind,
Could form th' alternate seasons, rear the fruits 175
That gladden life, or urge those gentler joys,
Gay PLEASURE, guide and goddess of the world,
Prompts in the panting breast, lest every tribe
Should fail on earth, the rites of Venus spurned.
These from the gods, as sovereign cause of all, 180
Such sophists trace, wide wandering from the truth.
For, though the rise of things I ne'er could prove,
Yet dare I, from the heaven's defective frame,
And many a scene alike perverse, affirm
No power divine this mass material reared 185
With ills so pregnant. This, in order due,
The muse shall full demonstrate: turn we now
To what of motion yet remains unsung.
  And here, O Memmius! mark this precept well;
That nought corporeal, of itself, can e'er 190
Ascend sublime through regions urged above.

Nor let th' aspiring flame, with specious boast,
Heedless deceive thee. True, with upward flight,
E'en from the first, its spreading spires unfold; 195
And fruits and plants their growth still upwards urge.
Yet as the weight by all possest, below
Drives all things, deem not thou, when the bright blaze
Flames through th' affrighted house, the crackling roof
Tumbling precipitate, then deem not thou 200
It mounts spontaneous but from foreign force.
Thus, from the wounded vein, the vital blood
Ascends, and pours its purple strength sublime:
And springs not thus the ponderous trunk immersed
In the clear stream, rejected by the wave? 205
Though deep we plunge it, with redoubled force
Still back it bounds, and, o'er th' elastic tide,
Rears half its solid bulk. Yet doubt we not,
Spite of such facts, that all things, uncontrolled,
Through space tend downward. From control alone 210
The lambent flame thus mounts, towards heaven impelled,
Else prone from native weight. Falls not, at night,
The mimic star, the meteor trailing long
Its line of fire, whene'er, amid the gloom,
Th' elastic ether opes the needed path? 215
The mid-day sun flings down his rays direct
And sows the fields with light: and the dread flash,
When thunder rends the skies, though wide it dart,
Now here, now there, amid the rushing rain,
Its forky fires—spends its chief strength on earth. 220
This, too, regard intent; that primal seeds,
When down direct their potent path they urge,
In time uncertain, and uncertain space,
Oft from the right decline—yet so minute
Veer they, no fancy less can e'er conceive. 225
Without this devious curve primordial seeds
Would drop successive, like the crystal shower,
Void of all contest, all re-active blow,
Whence Nature sole her world of wonders works.
If, then, there be, who deem the seeds of things 230
More ponderous, as their rectilinear course
Speeds through the void, the lighter soon may reach,
And thus the repercussive war commence,—

Far err they from the truth. For though, when urged
Through the pure air, or clear translucent wave, 235
Doubtless, all ponderous forms more swift descend;
This, from the variance of resistance sole,
Flows, by such fluids formed 'gainst things unlike,
The grosser quick o'erpowering. But pure space,
In every part, in every hour the same, 240
Throughout resists not, the demanded path
Yielding submissive. Hence, in equal time,
Through the blank void, unequal weights descend
Of every fancied variance: and hence, too,
The grosser ne'er the lighter urged below 245
Can gain, triumphant; or the contest rouse
Whence spring new motions, and all nature lives.
Hence doubly flows it why the seeds of things
Should from the right decline; yet, in degree,
The least conceptibly, lest we should deem 250
The line oblique which Nature ne'er assumes.
For nought more obvious, as the sight confirms,
Than that all weights, their downward course at will
Steering, obliquely never can descend;
But what keen sight of man can prove precise 255
That the swift cadence ne'er declines at all?
Had all one motion uniform, the new
Th' anterior skilful copying, if throughout
Primordial seeds declined not, rousing hence
Fresh springs of action, potent to subvert 260
The bonds of fate, and break the rigid chain
Of cause on cause, eternal,—whence, resolve,
Flows through the world this freedom of the mind?
This power to act, though fate the deed forbid,
Urged by the will alone? The free-born mind 265
Acts, or forbears, spontaneous; its own time,
Its place, alike uncertain: these the will,
Doubtless, alone determines, and, at once,
Flies the fleet motion through th' assenting frame.
Dost thou not see, as down the barrier drops 270
That reins the racer, instant though he dart,
Not half so instant darts he as his soul
Ambitious covets? Deep through all his frame
Th' elastic nerves must first the wish convey

Ere yet the consentaneous flight succeed. 275
Hence, obvious, springs all motion from the heart,
Roused by the mind's resolve, and instant urged
Through every nerve, through every quivering limb.
A force far different this than e'er prevails
When aught without coerces. Passive, then, 280
Bends all the frame th' extrinsic power beneath,
Borne down reluctant; till th' awakening will
Unchains each member, and resumes her right.
For oft, though foreign force, with tyrant sway,
Rule us, resistless, headlong hurrying down— 285
Say—lurks no adverse something in the breast
Proud to withstand? full oft, at whose control,
Swift flows the nervous tide from limb to limb,
Bursting each bond—and, oft, as swift retires?
Hence firm maintain we primal seeds some cause 290
Must feel of rising motion unbestowed
By weight, or blow reactive, whence alone
Upsprings this secret power by man possest:
Nought forming nought, as reason proves precise.
For weight forbids the credence that alone 295
Things by reaction move; yet, lest the mind
Bend to a stern necessity within,
And, like a slave, determine but by force,—
Though urged by weight, in time, in place unfixt,
Each primal atom trivial still declines. 300
Nor interstitial more, nor more compact,
Was e'er this frame of matter; nor augment
Primæval seeds, nor e'er admit decay.
Hence every movement in anterior time
That e'er subsisted, still subsists the same, 305
And will through endless ages: all begot,
Begotten must be, punctual to their kinds,
Exist, increase, and perish; following firm
The laws by Nature framed; nor aught of power,
Act where it may, can change th' entire of things. 310
For nought expands of spot where primal seeds
From the vast whole may fly; or e'er afresh,
Armed with new powers, re-enter, adverse thus
To Nature's plans, disorganizing all.
Nor this stupendous, that, though primal seeds 315

Move on incessant, and, through different forms,
Rouse different actions, the vast whole to sense
Rests undisturbed. For far beyond all ken,
Lies the prime base impalpable of things.
As this eludes all vision, so, alike, 320
Its motion too elude. E'en oft the sight
No motion marks where still the moving scene
Springs obvious, by the distance sole concealed.—
The fleecy flocks, o'er yonder hill that browse
From glebe to glebe, where'er, impearled with dew, 325
The jocund clover calls them, and the lambs
That round them gambol, saturate with milk,
Proving their frontlets in the mimic fray—
Press, at this distance, on the sight confused,
One white mass forming o'er the verdant steep. 330
Thus, too, when warlike squadrons crowd the field,
Horrent in arms, with horses scarce restrained,
Shaking the solid glebe, while the bright pomp
Flames through the skies, and gilds the glowing earth,
While groans the ground beneath their mighty tread, 335
And hills and heavens re-echo to their shouts—
Viewed from afar, the splendid scene that spreads
Seems void of motion, to the fields affixt.

Come now, my friend, and, next, perspicuous mark
What countless shapes primordial seeds assume, 340
How vast their variance: for, though myriads swarm
Of equal figures, oft unlike they meet.
Nor wondrous this, since, such th' abundance formed,
No bounds can chain, no numbers e'er compute.
Hence, not unfrequent, each from each, through space, 345
Must meet diverse, unkindred in their frames.

Thus Nature varies; man, and brutal beast,
And herbage gay, and silver fishes mute,
And all the tribes of heaven, o'er many a sea,
Through many a grove that wing, or urge their song 350
Near many a bank of fountain, lake or rill,
Search where thou wilt, each differs in his kind,
In form, in figure differs. Hence alone,
Knows the fond mother her appropriate young,
Th' appropriate young their mother, 'mid the brutes, 355
As clear discerned as man's sublimer race.

Thus oft before the sacred shrine, perfumed
With breathing frankincense, th' affrighted calf
Pours o'er the altar, from his breast profound,
The purple flood of life. But wandering wild 360
O'er the green sward, the dam, bereft of hope,
Beats with her cloven hoof th' indented dale,
Each spot exploring, if, perchance, she still
May trace her idol; through th' umbrageous grove,
With well-known voice, she moans; and oft re-seeks, 365
Urged by a mother's love, the accustomed stall.
Nor shade for her, nor dew-distended glebe,
Nor stream soft gliding down its banks abrupt,
Yields aught of solace; nor the carking care
Averts, that preys within; nor the gay young 370
Of others soothe her o'er the joyous green:
So deep she longs, so lingers for her own.
Thus equal known, thus longed for, seek, in turn,
The tender heifer, tremulous of voice,
And the gay bleating lamb, their horned dams, 375
Lured by the milky fount that nurtures life.
The corn, moreo'er, the yellow harvest yields,
Matures not all alike;—e'en the same kind
In size oft varying to the curious eye.
Thus vary, too, th' enamelled shells, that paint 380
The bending shore; whose thirsty sands drink deep
The main's soft waves, redundant rolled along.
Hence doubly flows it why the seeds of things,
Compact by nature, by mechanic art
Shaped not to one fixt model, each from each 385
Should differ oft in figure through the void.
Illumined thus, the mind with ease decides
Why heaven's electric flash a subtler power
Boasts, than the flame by torches fed below:
That formed than this of atoms finer far, 390
Triumphant piercing many a pore minute
By the dull taper's blaze essayed in vain.
Light, the clear glass pervades, while lymph recoils.
Whence springs the difference, but that subtler seeds
Rear the bright sun-beam than the fountain form? 395
Free through the strainer flows the sparkling wine,
While the slow oil hangs heavy: in its course

Checked, or by atoms of a grosser frame,
Or more perplexed, and tangled; each from each
Hence severing tardy, and, with toil extreme, 400
Transuding separate through th' attenuate lawn.
  Thus vary tastes: and while the dulcet draught
Of milk or honey charms the enchanted lip,
The wormwood straight convulses, by the tongue
Abhorred, and writhing every sapid nerve. 405
Hence may'st thou learn those seeds that rouse, combined,
A joyous flavour, round exist, and smooth;
While those that form the bitter, and austere,
Are hook'd, or jagged, and their path propel
Alone by wounding, hostile to the sense. 410
  Thus all things live; from primal atoms reared
Of shape diverse, as deep within they ope
Some secret source of pleasure or of pain.
So deem not thou the saw's discordant scream,
Horrid, and harsh, flows from the same smooth seeds 415
That wake the strain mellifluous, when the fair,
With flying fingers, sweeps th' accordant lyre.
Nor deem those atoms like, from putrid scenes
That spring malignant, and the essential sweets
Breathed from CILICIAN saffron, or the blaze 420
Of fragrant altars fed from orient groves.
Nor canst thou form from the same source those hues,
On which the vision feeds with fond delight,
And those abhorred, and hideous, or the germs
Pungent and keen, that rouse the sight to tears. 425
'Twere vain t' attempt: for all the soul that wakes
To various pleasure, boasts a base rotund;
While pain but springs from atoms hook'd and harsh.
  Yet seeds there are between; not smooth complete,
Nor deeply jagged, but with angles shaped 430
Just peeping o'er the surface. These the nerves
Pain not, but titillate; a sense perceived
When sweets with bitters, sours with sweets combine,
As oft in sauces, catered to the taste
From the pale inula, or grape's soft grounds. 435
  But fires and frosts spring different; from a base
Unlike indented, though indented each.
This if thou doubt, the TOUCH shall quick decide.

For TOUCH, O TOUCH! ye powers of heaven supreme!
TOUCH forms the genuine sense whence chief we trace 440
Whate'er without insinuates, or within
Springs up innate, injurious in th' escape,
Or, like the genial tide by Venus roused,
Pregnant with pleasure; or, perchance, the frame
Affecting inly, as th' essential seeds 445
Collect tumultuous, urged to civil strife.
A feeling, this, full oft educed amain
Whene'er th' uplifted palm, from sport or ire,
Lets fall its vengeance o'er the reddening cheek.
Hence, from effects so various, various too 450
Must be the forms to primal seeds assigned.
There are, moreo'er, that hard exist, and dense;
From atoms, these, more crook'd and clinging spring,
Like tangled branches intertwined throughout.
Such, mid the foremost, shines the diamond's blaze, 455
Fearless of insult, such the valid flint,
The steel's enduring vigour, and the brass
Discordant creaking from the public gates.
While those, reversed, a fluent power that boast
Swell into birth from seeds rotund, and smooth, 460
Unlinked th' essential globules, and with ease
Poured headlong down, dissevering as they fall.
Those, too, that quick fly off, as clouds or smoke,
Or lambent flame, if not from seeds educed
Rotund, and polished, doubtless, in their make 465
Nought know perplext, or hook'd, since armed with power
To pierce the Parian marble, nor to view
Cohering equal, like th' embracing brier:
Not jagged, but pointed, hence, the base they own.
Nor wondrous this; that things of fluent frame 470
As the broad ocean, oft should strike the sense
With taste unlovely; for, though round and smooth
The genial atoms whence all fluids flow,
Still, seeds discordant oft will intermix,
Rough, though globose, and by the tongue abhorred, 475
Though fitted still the fluent mass to form.
This to confirm, to prove with polished seeds
Seeds harsh full oft combine, whence springs alone
The main's disflavour—from the briny wave

The nauseous mass subtract, and all is sweet. 480
Thus Nature acts: through many a thirsty sand
The surge she filters, freshening in its course,
Till freed, at length, from every acrid power,
Tangled, and fixt behind, the dulcet lymph
Resprings to view, a calm and lucid pool. 485
This proved, what follows, as a truth derived,
But that the forms of seeds, though varying much,
Ne'er vary endless; not unfrequent, else,
Full many a seed must boast a bulk immense:
For many a differing figure ne'er can lurk 490
In things minute. Deem, then, primordial seeds
Three fancied parts comprise, or grant e'en more,
Invert their order, let the right be left,
Depress the loftiest, the profound exalt,—
Soon will the pigmy mass exhaust complete 495
Its tiny change of figures: would'st thou, then,
Augment the variance, thou must add, perforce,
New primal matter, hence augmented sole.
Thus from fresh forms increase of size must flow
Perpetual; nor the seeds of things in shape 500
Can differ endless, or e'en once evince
A bulk immense, as erst the Muse has proved.
Already else the purple woof superb
Of MELIBŒA, robbing for its dye
The SYRIAN coasts,—already, dropt with gold, 505
The peacock's laughing plumage else had sunk
By gaudier hues o'erpowered. The balmy myrrh,
The luscious honey never more had urged
A boast unrivalled; e'en the swan's soft dirge
Had ceased, and PHŒBUS dropt his liquid lyre: 510
All things o'er all prevailing undefined.
Thus those by sense abhorred, as these beloved,
To more abhorred would yield; each still o'er each,
In sight or sound, in taste or smell diverse
More hateful reared, more hideous, and obscene. 515
But since such powers exist not, since a bound
Is stampt on all things, we must own, convinced,
That primal seeds in shape are bounded too.
From frost to fire, from fire to winter's frost,
All, all has limits: heat and cold intense 520

Th' extremes creating; while progressive warmth
Fills up, between, the modulated scale.
Thus each degree, though varying, varies not
For ever, by extremes adverse confined,
Combustion here, and there the polar ice. 525
  But mark this truth, a truth connected close,
That all primordial seeds, of shape alike,
Alike are endless; for though few the forms
Those seeds admit, yet finite were themselves
Th' ENTIRE of things, a doctrine erst disproved, 530
Were finite too, by bounds surmountless chained.
  Come, then, while thus, in short, but sweetest verse,
We prove them infinite; prove hence alone
The world's vast fabric lives, cemented strong
By blows re-active unremitted urged. 535
  Few are the forms the casual sight surveys
Of brutes exotic; and, with us, but small
Their unprolific power: yet foreign climes,
And realms far distant, view each class complete,
Boundless in number. Thus, though seldom here 540
Heaves the huge elephant his ponderous limbs,
Prince of the savage tribes; yet myriads guard,
As with an ivory mound, all INDIA'S sons;
A mound no power can pierce. Such the vast stores
That Nature boasts in orders deemed most rare. 545
Yet could Creation's utmost scope produce
A form unparalleled by all that breathes,
Alone and individual,—were the base
Not infinite whence first the monster sprang,
How sprang he then at all? nor birth were his, 550
Nor e'en, though born, the power to nurture life.
But grant the primal atoms whence alone
Such individual springs, were finite found,
How, when, and where, by what concerted plan,
What power innate, could e'er those atoms meet, 555
Through ocean, scattered of ungenial seeds?
These time could never join. As when the main,
Worked into fury, many a mighty ship
Wrecks ruthless, and towards every coast impels
Masts, yards, and streamers, cordage, sails, and helms, 560
And planks disparted, teaching as they float

What dangers lurk unseen; what snares to lure
Unthinking mortals;—and forewarning loud
To fly the smooth temptation, nor e'en once
Trust the false waves, though decked in loudest laugh: 565
So, should'st thou make the primal seeds of aught
Once finite, instant the tumultuous war
Of adverse atoms, through the boundless void
Drives them far distant—never more to meet,
Or met, cohere, or e'en, cohering, grow; 570
Facts without which Creation's self would fail,
As all must thus proceed, augment, mature.
And hence the primal seeds of all that live
Must, too, be boundless, whence each want is fed.
Nor can the mortal motions that wear out 575
The varied forms of things, with utter doom,
Prevail for ever: nor e'en those, reversed,
Of genial power, that quicken into life,
Can, through perpetual time, that life sustain.
Thus war eternal, midst the seeds of things, 580
With equal triumph reigns; now here, now there,
The vital powers o'ercoming, and o'ercome.
The sigh funereal mingles with the bleat
Of babes just bursting to the light of heaven;
Nor night o'er day, nor morn o'er night prevails, 585
But marks the discord—INFANCY's shrill cry
Mixt with sick moans, the apparitors of DEATH.
This too, attentive, treasure in thy mind:
That nought the sight surveys, the soul conceives,
Flows from one class of primal seeds alone. 590
Whate'er exists is compound; and the more
The latent powers, the energies it boasts,
The more complex its nature; reared to life
From seeds more various, and of various shape.
First EARTH herself th' essential atoms holds 595
Of streams and fountains, whence the main renews;
Holds in herself the secret seeds of fires,
Oft the brown heath wide-parching, unperceived,
And oft, like Ætna, blazing to the day:
And holds each embryon, whence, to glad mankind, 600
Springs the gay corn, the blossomed fruit-tree springs,
Or whence the brutal tribes that roam at large

Draw their green banquets, and possess their shades.
Hence mighty MOTHER OF TH' IMMORTAL GODS,
Of brutes, and men, is EARTH full frequent feigned. 605
Her the sage bards of GREECE, in ancient song,
Paint drawn by lions in a car sublime:
Hence, teaching how, in ether poised, she hangs,
Unpropt by aught beneath; the savage beasts
They yoked and reined, to demonstrate how sure 610
The wildest young a mother's cares may tame;
And, with a mural crown her brows they bound,
Since with her towers she guards man's civic rights.
Thus deckt, tremendous, round from realm to realm,
Still moves the solemn pomp, by all adored. 615
Her many a state, from holiest legends, call
Parent of IDA; and with PHRYGIAN nymphs
Surround, her fair attendants; PHRYGIAN termed,
Since these the climes where first, as fame reports,
The field was cultured, and the harvest rose. 620
Her priests are eunuchs—emblem this devised
To teach that sons rebellious to their sires,
Or those the sacred fame that dare traduce
Of her who bore them, never shall themselves,
Worthless and vile, by gods and men abhorred, 625
Boast aught of babe to glad their longing sight.
With vigorous hand the clamorous drum they rouse
And wake the sounding cymbal: the hoarse horn
Pours forth its threatening music, and the pipe
With PHRYGIAN airs distracts the maddening mind, 630
While arms of blood the fierce enthusiasts wield
To fright th' unrighteous crowds, and bend profound
Their impious souls before the power divine.
Thus moves the pompous idol through the streets,
Scattering mute blessings, while the throngs devout 635
Strew, in return, their silver and their brass,
Loading the paths with presents, and o'ershade
The heavenly form, and all th' attending train
With dulcet sprays of roses, pluckt profuse.
A band select before them, by the GREEKS 640
CURETES called, from PHRYGIAN parents sprung,
Sport with fantastic chains, the measured dance
Weaving infuriate, charmed with human blood,

And madly shaking their tremendous crests.
These picture, haply, the DICTÆAN train, 645
Alike CURETES termed, as fame reports,
Who drowned the infant cries of JOVE in CRETE,
When round the boy divine, in arms they danced,
Boys still themselves, and beat to measured sounds
Their clashing shields, lest SATURN the shrill shriek 650
Should trace, and RHÆA shed eternal tears.
Thus these the matron-goddess now precede:
Or else, perchance, they paint how every breast
Should burn with patriot fire, and every arm
Prove the firm guardian of a parent's years. 655
All these, though pageants well-devised, and bold,
Will wander still from philosophic fact.
For, far from mortals, and their vain concerns,
In peace perpetual dwell th' immortal gods:
Each self-dependent, and from human wants 660
Estranged for ever. There no pain pervades,
Nor dangers threaten; every passion sleeps,
Vice no revenge, and virtue draws no boon.
Meantime the earth sensation never knows;
But, blest with the rude principles of things, 665
In various mode hence various forms she rears.
Call, if thou choose it, the resounding deep
NEPTUNE, and CERES term the golden grain;
Be BACCHUS wine, its vulgar source forgot,
And e'en this mass of senseless earth define 670
Parent of gods; no harm ensues,—but mark,
'Tis fiction all, by vital facts disproved.
Thus varies earth in product; and, alike
In primal seeds, thus varies all she bears.
The steed, the steer, the fleecy flock that range 675
Beneath the same pure sky, from the same fount
Their thirst that quench, and o'er the flowery lawn
Crop the same herbage, differ still, through time,
In form generic; each parental stamp
Retaining close, from sire to sire propelled. 680
Such the vast variance of primordial seeds;
Through every herb, through every fountain such.
Each form, moreo'er, of animated life
Compounded, flows from muscle, bone, and nerve,

Vein, heat, and moisture; yet e'en these comprise 685
Full many an atom, each, of shape unlike.
Thus fire itself is complex; for if nought
Deep blend besides, the germs, at least, combine
Of heat, smoke, ashes, and translucent light:
And reasoning thus, thy vigorous mind may deem 690
Still powers beyond lurk deeper, though unknown.
Of the same substance, as the fragrant gums
Burnt o'er the altar to th' offended gods,
Emits both taste and odour, hence from seeds
Educed, of various figures; odours oft 695
Piercing the nerves that tastes essay in vain,
And tastes where odours fail: facts that evince
Their forms diverse; and prove that seeds unlike
Rear the mixt mass diffused through all that lives.—
Mark but these fluent numbers; many a type 700
To many a term is common; but the terms,
The numbers culled, as differing these from those,
From different types evolve: not so diverse
That the same type recurs not through the whole,
Or that, recurring, it recurs alone 705
From types too bounded; but from types alike
Free to each term, yet ever new combined,
Flows the vast change, th' harmonious system flows.
Thus, through the world, the primal seeds of all,
To all things common, re-arranged diverse, 710
In myriad forms shoot forth; and herbs, and men,
And trees umbrageous own the same fixt source.
Yet not in endless modes combine the seeds
Of things at random; many a monster else
Would start tremendous, the fair frame of man 715
Sprout forth half formed, and trunks of trees have souls.
Shapes then would swarm half earthly, half marine,
And Nature's all-prolific womb propel,
With breath of fire, Chimæras; things the sight
Meets never, since from seeds, and powers precise, 720
All spring to life, and thus preserve their kinds.
Then all must spring, since all, from every food,
To every tribe adapted, straight digests;
And, blending with each limb, the train renews
Of acts appropriate; while th' ungenial mass 725

Meets earth unchanged; or if, perchance, absorbed,
Flies off impalpable through pores extreme,
Void of all union, and for life unfit.
  Nor deem each animated tribe alone
Such laws avows—all nature feels their force. 730
For since the difference 'twixt created things
Is total, their primordial seeds in form
Must differ too: not that they ne'er commix
Of equal shape, but e'en when mixt that still,
From re-arrangement, the result is changed. 735
Nor only in their forms thus vary seeds
Primordial; but, alike, in weight, and power,
In concourse, motion, intervening space,
And close connexion; changes that define,
Not men and brutes alone, but bound secure 740
From ocean earth, and earth from heaven sublime.
  But haste we, many a truth lies yet unsung
Culled from my own loved labours. Deem not thou,
When aught of substance black or white the view
Solicits obvious,—deem not, in the germs 745
Of embryon matter, black or white inheres,
Or aught besides of tint, where aught occurs,
Rousing the vision; since the seeds of things
Live void of colours actual or conceived.
This should'st thou doubt, contending nought exists 750
Through the wide world but must evince some hue,
The doubt flows groundless. He, whose sightless orb
Ne'er drank the day enlightened, still perceives
Whate'er exists, though tints elude his ken.
Hence not essential colours to the form 755
Of things created: frequent e'en ourselves,
Mid the deep shade of night, by touch alone
Prove what surrounds us, every hue extinct.
  All hues, moreo'er, to all by turns convert;
A change primordial seeds can ne'er sustain; 760
Since something still through nature must exist
All change defying, lest th' ENTIRE surveyed
Fall into nought; for that which once admits
Mutation dies, its pristine powers destroyed.—
Tinge, then, with caution, the prime seeds of things, 765
Lest, hence, thou ope the doors of death to all.

But though material atoms thus live void
Of hue; still many a differing form is theirs,
Whence hues they gender, and their variance stamp.
Much, then, import th' arrangement, and the powers, 770
The kinds, connexions of primordial seeds,
Positions, impulse, and effects impelled;
Since, hence, with ease the mind may, instant, trace
Why what is black this moment, should, the next,
Pour o'er the view with alabaster dye. 775
Thus, when loud tempests tear the tortured main,
The dashing surge is robed in dazzling white,
This may'st thou fathom hence, and prove precise
Why, oft though black, from combinations new
Of its primordial atoms, added these, 780
And those withdrawn, oft, too, the deep should wear
A vest contrasted, whitening to the day.
But were its primal atoms tinged themselves
Black, or but blue, concussion ne'er could change
The fixt result; nor turn the black or blue 785
To the pure polish of the marble bust.
Nor urge from seeds of varying tints, perchance,
Springs, when combined, the main's resplendent face;
As in the cube mechanic many a shape
Diverse unites to rear its frame complete. 790
For as the keen sight in the cube surveys
Those varying figures, so the splendid deep,
Or aught of equal lustre, would evince
The varying tinctures whence that lustre flows.
The differing forms, moreo'er, the cube contains 795
Mar not its unity, but differing hues
A blended tinge create, by each diversed.
A cause like this, too, all effect destroys;
Since white or black springs not from seeds so dyed,
But seeds commixt of various dyes possest. 800
Though, doubtless, white flows rather from the want
Of each existent tincture, than from seeds
With black, in part, imbued, or aught besides
Of equal contrast, and as firm a foe.
And, since all colours live but in the light, 805
Were hues essential to the seeds of things
These, too, would die in darkness: for, resolve,

What hues exist beneath the midnight gloom?
Hues born of sun-beams, changing but their shades
As, playful, changes the refracted ray? 810
Thus the gay pigeon, as his plumes he waves,
Drinks in new tinctures from the noon-tide blaze:
Now glows the ruby, and now, tinged with blue,
Sports the green emerald o'er his glossy neck.
Thus, too, the peacock, as direct, or bent 815
Falls the full beam, wears each prismatic dye.
Since, then, th' impinging light each hue creates,
So, without light, each, instant, must expire.
And as the stimulus the sight that strikes
Varies, from things that varying dyes educe, 820
Black, white, or aught besides, and nought imports,
Change how it may, th' existing hue, but sole
The different figures whence those hues are reared:
Hence useless colours to the seeds of things,
From varying forms by varying frictions roused. 825
Since, too, no seeds defined with tints are stained
Defined alike, and every shape concurs
In all that springs, whate'er the hue evinced,
Whence flows it, then, that every class alike
Reflects not every tincture?—whence that crows 830
Robe not in white from seeds that white create?
Or that the downy swan, in black arrayed,
Or hues as hideous, ne'er the sight appals?
As things, moreo'er, to parts minute divide,
Th' anterior tincture fades. Thus fades away, 835
To dust impalpable reduced, the dye
Of gold refulgent: thus the TYRIAN woof,
Frittered to threads, its purple pride foregoes;
Hence proving clear that hues from things concrete
Evanish total ere to seeds dissolved. 840
From many a substance sound, or odour fine,
Flies never; nor the race of man bestows
Odours, or sounds on all things. Judge then, hence,
That, since not all things the keen sight discerns,
Full many a substance, too, as void exists 845
Of varying hues, as these of scent, or sound:
Things, than which nought the mind more clear perceives,
Whate'er the powers possest of, or denied.

Nor deem primordial seeds devoid alone
Of hues prismatic. Heat, and cold severe,
Moisture, and sound, these, too, they never know;
Nor aught of fluent odours, to the sense
Hateful or sweet. Thus when, to please the fair,
Some rich perfume the skilful artist plans,
Drawn from the fragrant nard, the dulcet powers
Of marjoram, and myrrh, with studious heed
From the pure olive first a juice he seeks
Void of all scent, for nature such prepares.
Lest, with th' effluvia thus selected choice,
Aught else combine, and mar th' harmonious whole.
Thus void of scent primordial seeds must spring,
Thus void of sound; and hence nor scent, nor sound,
Can give to things created; for themselves
Nought can transmit but what themselves possess.
And hence, moreo'er, the powers of heat, or cold,
Vapour, or taste, these never can bestow.
Nor aught alike destructive, aught surveyed,
Viscous, unfirm, or fragile; aught educed
From bodies soft, putrescent, or relaxed;
These thou must sever from primordial seeds
If things created on a base be built
Immortal, whence the world's vast fabric lives,
And nought to nought can waste with utter death.
This full premised, now, MEMMIUS, mark what flows;
That all the sentient forms the sight surveys,
Whate'er their powers, from senseless atoms spring.
This every fact of every day, if scanned,
Far from resisting, proves a truth most firm;
That sentient things, things void of sense create.
Thus into life th' insensate dunghill rears
The race of worms, when once the mingling shower
Wakes the warm ferment through the putrid mass.
Thus all things change to all things; foliage, fruits,
And the gay glebe to flocks, and herds convert;
And flocks, and herds to man; and man, in turn,
Feeds the foul strength of birds, and barbarous beasts.
From every food, thus Nature's chemic power
Builds up the forms of life; in every class
Thus wakes the senses every class avows;

As through the winter-stack full oft she spreads 890
The rushing blaze, and turns the whole to fire.—
Seest thou not hence, then, of what vast concern
The modes in which primordial seeds combine,
Act, or re-act, give motion, or accept?
This creed what hinders? what perverts thy mind, 895
And locks thy senses from a truth so plain
That sentient things from things insensate flow?
What but that stocks, and stones, and earth's dull clod,
Boast no sensation though alike educed?—
Yet mark, attentive, the sage muse ne'er yet 900
Has urged that all things doubtless must alike
Spring forth percipient, and with sense endued:
But that of vast concern, as hence alone,
Sensation ceaseless flows—the modes diverse
Of motion, order, form, with which, through time, 905
Primordial atoms blend:—modes the dull clod
Knows not, its frame unorganized and rude.
Though the dull clod, or sapless root as dull,
When the moist shower the putrid strife has roused,
Themselves the vermin race in crowds create: 910
Changed, then, their nature, from arrangements new,
And full empowered perceptive life to rear.
Those, too, who hold that sentient forms throughout
Spring but from sentient seeds, those seeds must deem
Soft and unsolid, since unsolid all, 915
And soft each region, where sensation reigns,
Th' interior bowels, and the flesh without;
And hence such seeds must doubtless waste to nought.
Yet grant their dates eternal: such must then
The total sense possess of things they rear, 920
Or sense of separate parts: but parts alone
Have no perception, nor alone can live.
Each leans on each; the loose dismembered hand
Drops powerless; nor can aught itself sustain,
From the full form, the total sense that flows. 925
What then remains but that each seed exists
An animal complete, endowed throughout
With vital functions? but resolve, how then
Prove they the immortal principles of things?
Whence draw the power, possest by nought that breathes,

To live through time, and brave the attacks of fate? 931
  But grant e'en this: their combination still
No forms could rear, but those of sentient life;
Nor men, nor herds, nor savage beasts produce
Aught but themselves; the sense generic shown 935
Varying as varies the generic frame.
  Nor urge that sentient seeds, at times, perchance,
Lose all sensation, and insensate live;
Why with an attribute so soon destroyed
Robe them at all then? Rather, mark how soon 940
The insensate yolk incipient life betrays,
And springs a vital chick: mark, as the muse
Has earlier sung, how from the warm ferment
Of earths putrescent, by the clouds bedewed,
The vermin nations rise, with soul replete, 945
Thus spreading sense where sense was none before.
  Nor deem sensation senseless seeds create
Sole from some change anterior, long educed
Ere into birth the sentient being springs.
What more fallacious? since nor birth complete 950
Nor aught of change can Nature's self create
But from the sympathy of primal seeds:
Nor, till the frame percipient be combined,
Can e'er perception flow; since wide through space,
In earth, in air, in streams, and lambent fire, 955
Are spread the rude materials, unarranged,
And void of social bond, whence first exists
Each vital motion, whence each guardian sense
Springs, and the complicated frame protects.
  When too, abrupt, falls some tremendous blow, 960
Throughout the system suffers, every sense
Of soul and body discomposed alike.
Then fails the arrangement of primordial seeds,
Each vital action fails; and, shook severe
Through every limb, the principles of life 965
Dissolve each fond connexion, quit their post,
And through th' external pores fly off at large.
For what but this can force extreme effect?
The dread solution, and the death of all.
  But oft, when less the violence displayed, 970
The vital motions left may triumph still,

And quell the mighty tumult, and recall,
From the rude grasp of fate, each active power
Marshalled anew, and every sense relume.
For else, why rather should those powers retreat 975
Back from destruction with recruited strength,
Than still proceed, and burst the bars of life?
As pain, too, springs when, midst th' interior frame,
Or limbs extreme, by sudden force convulsed
Each vital atom shakes through all its course, 980
But yields to pleasure when the shock subsides,—
Since primal seeds can ne'er such shock sustain,—
No pain they know, nor e'er the fruit can pluck
Of dear delight; hence nought of sense is theirs.
But if, that things sensation may possess, 985
Their seeds primordial must possess the same,—
Say, from what seeds, then, springs the race of man?
From those, forsooth, incited quick to laugh,
Those down whose cheeks perpetual tears distil,
And those deep-versed in causes and effects, 990
Discussing grave the seeds that rear themselves.
For grant this system, and whate'er exists
Must spring from seeds minuter, endless urged,
And draw, progressive, every power displayed
Of thought, or laughter, from the parent stock. 995
This if thou smile at, and contend that things
With power endowed of laughter, speech, and thought
Still rise from seeds that no such powers avow,
Why not concede, then, sentient things alike
May flow from seeds of total sense devoid? 1000
All spring from heaven, ethereal, all that live:
The sire of all is ETHER: he, full oft,
In dulcet drops descends of genial rain
And the bland EARTH impregnates. Timely, then,
Rises the glossy blade, the joyous leaf 1005
Shoots forth, and man and beast, in countless tribes,
Fed from the various banquet of the fields,
Live their gay hours, and propagate their kinds.
Maternal, hence, is EARTH most justly named.
Thus all things rise, thus all again return: 1010
Earth takes what earth bestowed; and back to heaven
Remount the ethereal dews from heaven that fell.

Yet death destroys not the prime seeds of things,
But scatters only; atoms hence commix
With stranger atoms, every form commutes, 1015
And every tint; perception springs amain,
And, instantaneous, wastes again to nought.
Of such vast moment are the modes diverse
In which primordial seeds their posts arrange,
Act, and re-act, give motion, and accept: 1020
For deem not seeds thus floating most minute
Through the vast whole, now obvious to the view,
Now quick disperst, can ne'er eternal live.
Such then the moment, as already urged,
With which the types, these numbers that compose, 1025
Change their positions, and retreat, or blend.
Thus the same letters, or with variance small,
Heaven, earth, and water, seas, and suns express,
Fruits, plants, and mortals; common are the types,
The terms but change from combinations new. 1030
Thus change material things: their primal seeds
In site, connexion, interval of space,
Position, motion, weight, attractive power,
In these as varying, varies the result.
Now bend thy mind to truths profounder still: 1035
For stranger doctrines must assault thine ear,
And a new scene of wonders yet unfold.
Whate'er is new, though obvious and defined,
Gains not an easy credence; but when once
Flies the fresh novelty, th' unsteady soul 1040
Yields its full faith to facts mysterious most.
The vault of heaven cerulean, spangled thick
With stars, and with th' effulsive lustre cheered
Of sun and moon refulgent—were at once
This scene celestial o'er the race of man 1045
To burst abrupt—how would the nations start!
What wonders, then, be traced! with what vast toil
Would e'en the sage the prospect preconceive!
Yet now, full sated with the scene sublime,
Man scarce lifts up his listless eyes to heaven. 1050
Cease, then, alarmed by aught profound, or strange,
Right reason to reject; weigh well the proofs
Each scheme advances; if by truth upheld

Embrace the doctrine; but, if false, abjure.
Urged thus, by truth,—beyond the world's wide walls 1055
Since space spreads boundless, the redundant mind,
Free in its flights, pants, ardent, to discern
What fills those realms where sight can never soar.
And first, th' ENTIRE OF THINGS, above, below,
Search where thou wilt on every side alike 1060
Spreads unconfined: this, as already taught,
Right reason proves, and many a clamorous fact.
Then deem not thou, since thus perpetual space
Flows infinite, and infinite the seeds
That, from exhaustless founts, in endless modes 1065
Fly through the void, by endless motions urged,
Deem not this visual system of the heavens
Alone exists, unparalleled by aught,
And that all matter elsewhere sleeps supine.
Since too of its own nature the vast mass 1070
Sprang forth spontaneous, rousing every power
To every mode of motion, rashly oft,
Oft vain and fruitless, till, at length, it formed
Th' unchanging rudiments of things sublime,
And heaven, and earth, and main, and mortals rose:— 1075
Hence doubly flows it, other systems still,
Like ours, must deck the vast ethereal void,
Enfolded in its avaricious grasp.
Ample, moreo'er, the matter thus required,
The place at hand, the cause efficient full, 1080
Whence new creations may for ever spring.
Since, then, so boundless the great mass of seeds
That endless ages ne'er could cast th' amount,—
Since the same power presides, the nature still
That reared this visual system, and alike 1085
Those seeds can mould to systems such as ours—
The fact flows doubtless, mid the void immense,
That other worlds in other parts must rise,
Peopled with reasoning, and with brutal tribes.
Add, too, that nought, through universal space, 1090
Springs single, the sole progeny produced,
The sole sustained; still countless every class,
Those, chief, percipient: the wild mountain herds,
The race of man consociate, the mute fish

With quivering fin, and all th' aerial tribes. 1095
Hence, too, nor heaven, nor earth, nor sun, nor moon,
Nor the broad main, nor aught besides, alone
Can live, but each unlimited in kind.
Each the same substance, the same seeds of death,
Bears in its frame, that stamp the ranks diverse 1100
More obvious, gendered by connubial love.
These truths avowed, all Nature shines at once,
Free in her acts, no tyrant to control,
Self-potent, and uninfluenced by the gods.
For, O ye powers divine! whose tranquil lives 1105
Flow free from care, with ceaseless sunshine blest,—
Who the vast whole could guide, midst all your ranks?
Who grasp the reins that curb th' ENTIRE OF THINGS?
Turn the broad heavens, and pour, through countless worlds,
Th' ethereal fire that feeds their vital throngs? 1110
Felt every moment, felt in every place.
Who form the louring clouds? the lightning dart,
And roll the clamorous thunder, oft in twain
Rending the concave?—or, full deep retired,
Who point, in secret, the mysterious shaft 1115
That, while the guilty triumphs, prostrates stern
The fairest forms of innocence and worth?
Long after the wide world had risen, the sun
Shot his young beams, and earth and sea rejoiced
In infant being—still primordial seeds, 1120
From the vast compass of th' ENTIRE, conjoined;
Conjoined from every part; hence earth and main
Increased; hence the broad mansions of the heavens
Spread wider; and th' ethereal dome was filled
With new-born air; for all, harmonious, blend 1125
Kinds with their kinds, and thence those kinds augment.
Earth from the seeds of earth, from fiery, fire,
Air from aerial, from the dewy, dew:
Till all-prolific Nature rears at length
To full perfection the vast frame of things, 1130
And the gorged system can no more absorb
Than what flies casual from th' external pores.
Then boasts the whole completion; Nature, then,
Restrains all progress, every power matured.
For all with gradual growth that swells, and thus 1135

Climbs, by degrees, the scale of life adult,
Far less emits than what its frame receives.
Wide through the system flows the genial food
Towards every part disperst: yet not so wide
That much transudes external, and the day 1140
Thus loses larger than the day digests.
For still, though much evanish, ampler still
The nutriment that spreads, till the full form
Gains, by degrees, its point of perfect power.—
Then back, by gradual march, its strength declines, 1145
Its fond perfection, and, from day to day,
Melts all its vigour.—This the ceaseless course
Of things created. But those chief, with speed,
Waste into nought that boast a bulk immense;
Since wider, here, the surface whence, each hour, 1150
Flies off the light effluvium, nor with ease
Winds the fresh food through all the mighty mass,
By ceaseless strife exhausted, and a store
Asking far ampler than the store received.
Thus all must perish, unsupplied within, 1155
And, from without, by blows tumultuous urged;
Blows that, resistless, from whate'er adjoins,
Ply their full vigour till the victim yields.
Thus shall the world's wide walls hereafter sink
In boundless ruins: thus, though yet sustained 1160
By food appropriate, and preserved entire.
For not for ever will her powers digest
The due recruit, nor Nature's hand supply.—
E'en now her glory fades, and the faint earth,
That erst upreared such giant forms of life 1165
In every class profuse,—scarce now protrudes,
With utmost toil, a scant and puny race.
For deem not thou some golden chain from heaven
Each tribe conducted down to realms below;
Nor from the boisterous billows of the main 1170
That mortals sprung: Earth from herself produced
The various ranks that still herself sustains.
Then, too, spontaneous, from the soil she reared
Those luscious fruits, those vines that gladden life;
And crowned with pasture, and with glossy corn, 1175
Those fields where man now toils almost in vain:

Where faints the steer, the ploughman faints fatigued,
And the keen share so wastes, mechanic art
Can scarce supply th' exhaustion:—such the call
For labour now, so foods forbear to rise. 1180
Thus musing, the rude husbandman shakes oft
His weary head; his thriftless pains bewails,
Thriftless too sure: and, while his wandering thought
Weighs, with the present, the fair times elapsed,
Envies the lot the men of yore enjoyed. 1185
Then, luckless planter of degenerate vines!
His day he curses, then all heaven he tires,
Muttering that earlier times, though virtuous more,
Should, thus, have more been favoured,—thus have reared
An ampler harvest e'en from narrower farms,— 1190
Heedless that all things by degrees must fail,
Worn out by age, and doomed to certain death.

BOOK III.

O Glory of the Greeks! who first didst chase
The mind's dread darkness with celestial day,
The worth illustrating of human life—
Thee, glad, I follow—with firm foot resolved
To tread the path imprinted by thy steps; 5
Not urged by competition, but, alone,
Studious thy toils to copy; for, in powers,
How can the swallow with the swan contend?
Or the young kid, all tremulous of limb,
Strive with the strength, the fleetness of the horse; 10
Thou, sire of science! with paternal truths
Thy sons enrichest: from thy peerless page,
Illustrious chief! as from the flowery field
Th' industrious bee culls honey, we alike
Cull many a golden precept—golden each— 15
And each most worthy everlasting life.
For as the doctrines of thy godlike mind
Prove into birth how nature first uprose,

All terrors vanish; the blue walls of heaven
Fly instant—and the boundless void throughout 20
Teems with created things. Then too we trace
The powers immortal, and their blest abodes;
Scenes where the winds rage never—unobscured
By clouds, or snow white drifting,—and o'erspread
With laughing ether, and perennial day. 25
There nature fills each want, nor aught up-springs
To mar th' eternal harmony of soul.—
Yet nought exists of hell's infernal reign:
Nor hides the solid earth the scenes from sight
Spread through the void beneath.—On these vast themes 30
As deep I ponder, a sublime delight,
A sacred horror sways me—Nature thus
By thy keen skill through all her depths unveiled.
Since, then, we erst have sung the make minute
Of primal seeds; how, in spontaneous course 35
Re-active urged, their various figures fly,
And, hence, how all things into life ascend,
Next let our daring verse the frame unfold
Of soul, and reasoning mind;—and chase, far chase
Those fears of future torment that distract 40
Man's total being; with the gloom of death
Tinge all things; nor e'en suffer once the tide
Of present joy to flow serene and pure.
For though, full oft, men boast they far prefer
Death to disease, or infamy of name, 45
Assert they know the soul but springs from blood,
Or, if the humour urge them, is but air,
And hence, that useless all the lore we bring:—
Oft flows the boast from love of praise alone.
For when of home debarred, from every haunt 50
Of man cut off, with conscious guilt o'erpowered,
Midst every ill such boasters still survive:
Still fell new victims, and th' infernal powers
Implore with black oblations; through their breast
Religion thus with ten-fold force propelled. 55
Through doubtful dangers, hence, through straits severe
Pursue the race of man; then sole ascends
Truth from the lowliest bosom, then alone
Flies all profession, and the fact unfolds.

E'en restless avarice, and love of fame, 60
So oft to deeds unrighteous that seduce,
And spread the growing guilt from man to man.
By ceaseless toil urged on, and night and day,
Striving the crowd t' o'ertop—these pests of life
Draw half their vigour from the dread of death. 65
For infamy, contempt, and want severe,
These chief embitter mortals; these, they deem,
Death's foremost train; and, studious these to shun,
Far off they fly, still wand'ring from the right,
Urged on by fear, and kindle civil broils, 70
And murder heap on murder, doubling thus,
Ceaseless, their stores insatiate: raptured high
When breathes a brother his last, languid groan;
And with mistrust, through every nerve alarmed,
Joining the feast some jovial kinsman forms. 75
From the same source, the same deep dread of death.
Springs ENVY poisoning all things: mortals, hence,
Lament to power that this, to glory that,
Crown'd with the people's plaudits should ascend,
While all unnoticed, mid the crowd obscure 80
Themselves still jostle; pining every hour,
For names, for statues; and, full oft, so strong
From dread of death, hate they the light of heaven,
That, sick at heart, through their own breast they plunge
The fatal steel: heedless that this alone, 85
This pungent dread, engenders all their cares,
Nips the keen sense of shame—turns friends to foes,
And bursts the bonds that harmonize the heart.
For, goaded hence, hell ever in his sight,
Man oft betrays his country; and, for gold, 90
Yields up the reverend form that gave him birth.
For as the boy, when midnight veils the skies,
Trembles and starts at all things—so, full oft,
E'en in the noon, men start at forms as void
Of real danger as the phantoms false 95
By darkness conjured, and the schoolboy's dread.
A terror this the radiant darts of day
Can ne'er disperse. To truth's pure light alone,
And wisdom yielding, intellectual suns.
First, then, the mind, the spirit named at times, 100

That which controls, which measures sentient life,
Forms of this mortal make a part as clear
As the keen eye, the finger, or the foot.
Here cleave we firm, though many a sage contends
The mental sense no part specific frames, 105
But springs the vital product of the whole.
This the GREEK schools term HARMONY—a sense
Of living power while still th' essential soul
No point appropriates—as corporeal health
Flows not from sections, but the form entire. 110
Thus, deem they, springs the mind; a tenet fraught,
If right we judge, with error most absurd.
For oft th' external frame disease sustains,
While all escapes within: and thus, reversed,
The mind oft sickens while the body thrives: 115
As, when the gout the tortured foot inflames,
The distant head still boasts its wonted ease.
When, too, sweet sleep o'er all the wearied limbs
Spreads his soft mantle, and locks every sense,
Still something stirs within us—something urged, 120
E'en then, to various motions, and alive
To joy's glad impulse, or fictitious fears.
  Yet more; to prove the soul a part exists
Constituent of the body—to subvert
This fancied HARMONY—mark oft how life 125
Mid the dread loss of many a limb endures;
While instant as the vital heat but ebbs,
The vital breath flies off—pulsation stops,
And heart and limb all lifeless lie alike.
Hence may'st thou judge that not in every part 130
Dwells the same portion of percipient power,
Nor health from each flows equal; but that those
Chief nurture life, and check its flight abrupt,
Reared from aerial seeds, or fluent heat.
As these exist, then, heat and vital air, 135
Health through the members sickens or abounds.
  This proved precise—that soul, that mind exists
Part of the body—let such sages still
Hold the term HARMONY—deduced, perchance,
From the sweet chords of Helicon; let such 140
Still something mean, whate'er that something be,

No name of theirs expresses: thou, meanwhile,
Quitting such contests, mark what yet remains.
The soul, the mind, then, one same substance forms
Minutely blended; but, in vulgar phrase, 145
That call we mind, or spirit, which pervades,
As chief, the heart's deep avenues, and rules
The total frame. Here grief, and terror spring,
Here pleasure plays; and here we hence conceive
Dwells mind, or spirit; while the remnant soul, 150
Through every limb diffused, the mind's dread nod
Obeys, and yields submissive to its will.
Of its own powers, mind reasons and exults,
While soul, like flesh, can never rouse alone.
As oft the head, or eye, some anguish keen 155
Sustains, while yet the general frame escapes,
So, in itself, the mind, full oft, endures
Rapture or pain, while yet the soul at large,
Spread through the members, nought of change perceives.
But when the mind some shock severe subdues, 160
The total soul then sympathizes: then,
Should deadly horror sway o'er all the frame
Spreads the cold sweat, the livid paleness spreads,
Clouds dim the sight, the palsied tongue is mute,
Tingles the ear, and every limb dissolves. 165
Oft, too, from mental terror faints the frame:
Whence may'st thou mark how close the bond that knits
The soul and spirit; this exciting that,
And that, when roused, deep-rousing every nerve.
Hence prove we, too, that both alike exist 170
Corporeal:—hence, since every member yields
With quick submission to the joint behest:
Since bursts from sleep the body, since the face
Obsequious varies, and the total man
Feels the full sway profound; for nought can act 175
Where touch subsists not, nor can touch subsist
Void of corporeal base:—can we, then, doubt
That soul, that spirit must corporeal spring?
In all, moreo'er, of ease or anguish keen
The body feels, the assenting mind partakes. 180
Thus, when some deadly dart through many a nerve,
Mid many a bone, tremendous, winds its way

Quick faints the spirit:—a fond wish to die
Now sways, and now the native love of life.
Material, hence, the mental frame must live, 185
Since by material arms so soon assailed.
Now list attentive, while we next unfold
Its make mysterious, and to sight educe.
First, then, we firm maintain the mind results
From seeds of matter, most minute and smooth. 190
This hence we prove, that nought so swiftly speeds
As what the mind determines and completes;
The mind, whose keen rapidity o'erpowers
All that the sight marks instantaneous most.
But what thus rapid moves, from seeds must spring 195
Most exquisitely subtile, and rotund,
Roused into action by minutest force.
Thus moves the fluent stream, urged on with ease,
Since reared from atoms polished, and exile,
While the tough honey, of compacter frame, 200
More tardy flows, and ampler force demands.
For more tenacious here the total mass,
From heavier seeds engendered, tenuous less,
And less globose. Thus zephyr's gentlest breath
Wide scatters, oft, the seeds the poppy rears, 205
Heaped in the sun-beam,—while the grosser mass
Of congregated stones, or missile darts
Feels no impression. Hence material things
Move brisk or sluggish, as from atoms reared
Light and globose, or denser, and more rough. 210
Since then the mind, in every act, we trace
Most voluble, from seeds of subtlest size,
Rotund and light, its mystic make must spring:
A fact, O friend to truth! thou oft shalt find
Of utmost moment in what yet remains. 215
Hence learn we, too, of what attenuate frame
The mind consists; and to what trivial space
Must shrink its texture if compacted close—
That, when in death the wearied body sleeps,
And soul and spirit wander from their post, 220
E'en then the sight no diminution marks
In weight or figure; death usurping sole
The warm-breathed vapour, and the vital sense.

From seeds minutest, hence, the soul entire
Must flow,—through all the frame profusely poured; 225
And, e'en when fled, still leaving every limb
Its wonted weight, its figure most precise.
So, from the juice of BACCHUS, when flies off
Its flower ethereal, from the light perfume
When mounts the essential spirit, or from man 230
Th' excreted lymph exhales—the curious eye
Nought marks diminished,—the same weight survives,
Th' same fixt bulk, since from minutest seeds
Springs the light scent, the ethereal spirit springs.
Hence doubly flows it why the mind's pure frame 235
Must, too, be reared from seeds of subtlest size,—
Hence, as its flight to visual change creates,
But bulk alike, and substance still endure.
Yet not unmixt its nature: the light gas
Breathed from the dying, in its texture blends 240
Heat, air, and vapour, ever each with each
Compacted; vapour, in its ample pores,
Absorbing heat, and heat ethereal air.
Triple the substance, hence, the soul that builds;
Yet e'en the whole perception ne'er can form: 245
For nought in each subsists of power t' excite
Those sensile motions whence perception flows.
Hence some fourth substance, doubtless, must we deem,
Conjoint existing; which, though void of name,
Springs from minutest atoms, lightest most 250
And most attenuate; deep-endowed with power
Of fleetest speed, and hence, that first begets
Those sensile movements that the frame pervade.
This first begets, as formed from subtlest seeds,
Next heat the incipient action, vapour next 255
Partakes, and air posterior, till the soul
Rouses throughout: then flows the blood, then feels
Each vital organ,—till, through every bone,
E'en to its central marrow, winds, in turn,
The sinuous rapture, or the sense of pain. 260
Yet pain, thus deep within, can never pierce
With keen corrosion, but the total man
Shakes from his basis—life no more subsists,
And the light soul through every pore flies off.

Hence less profound descends, in general ills, 265
Th' excited action, and man still survives.
And here, in phrase appropriate, would we prove
In what firm bonds, what various modes, the make
Of each with each commixes, but the dearth
Of terms select restrains us; yet attend 270
While thus our utmost efforts we essay.
Each primal substance, then, with each coheres
In every act so firm that nought conceived
Can sever; nought can central space admit;
But as the powers they live of one joint frame. 275
As the fresh victim blends in every limb
Heat, taste, and odour, while the total builds
But one compacted mass, so here, alike,
But one same nature flows from heat and air,
And mystic vapour, and the power unnamed 280
That rears the incipient stimulus, and first
Darts sentient motion through the quivering frame.
Far from all vision this profoundly lurks,
Through the whole system's utmost depth diffused,
And lives as soul of e'en the soul itself. 285
As with each limb the general spirit blends,
Though ne'er discerned, so subtle and so few
Its primal seeds—so, through the spirit, spreads
This form ineffable, this mystic power,
Soul of the soul, and lord of mortal man. 290
Thus, too, commixt must vapour, heat, and air,
Live through each limb united; and, though oft
Each rise o'er each triumphant, still uprear
One frame harmonious, lest the power of air,
Of heat, or vapour, each from each disjoined, 295
Mar all sensation, and fly off dissolved.
Heat springs superior in the mind enraged,
When burns the total system, and the eye
Darts forth its lurid lightnings: vapour chill
The ascendance gains when fear the frame pervades, 300
And ruthless Horror, shivering every limb;
While the pure air, of tranquillizing power,
Smooths all the visage, and the soul serenes.
Heat sways, as urged already, in the form
With acrid breast, that rouses soon to ire; 305

Chief in the rampant lion, whose proud heart
Bursts with impetuous roaring, nor can bound
Th' infuriate tide that ceaseless raves within.
For ampler vapour mark the timid deer:
Quick spreads its chilling dew through every limb 310
In many a tremor quivering; while the ox
Proves, through his placid life, a temper formed
From air supreme. Him ne'er the torch of ire
Maddens abrupt in clouds and smoke involved,
Nor shuddering fear transfixes; but, remote, 315
'Twixt both he stands, and lifts his honest front,
The trembling deer, the lion gaunt and grim.
Thus varies man: though education trim
Add its bland polish, frequent still we trace
The first deep print of nature on the soul, 320
Nor aught can all—erase it: ever, whence,
This yields to sudden rage, to terror that,
While oft a third beyond all right betrays
A heart of mercy. Thus, in various modes,
The moral temper, and symphonious life 325
Must differ; thus from many a cause occult
The sage can ne'er resolve, nor human speech
Find phrase t' explain; so boundless, so complex,
The primal sources whence the variance flows!
Yet this the muse may dictate that so few 330
The native traces wisdom ne'er can rase,
Man still may emulate the gods in bliss.
Thus through each limb th' impressive spirit spreads,
Lord of the body, the prime fount of health,
Thus with each limb in league so close combines 335
Nought void of death can sever them in twain.
As the clear frankincense its fond perfume
Can ne'er desert till both together die,
So, from the flesh, the spirit and the soul
Part not till each one common fate dissolve. 340
So live they mutual, so, from earliest birth,
In intertwined existence, that apart,
Nor this nor that perception can possess,
The joint result of each, by effort joint
First kindled, and through all the frame diffused. 345
This frame, moreo'er, alone can never spring,

Can never thrive, the dread attack of death
Can never conquer. For, with aim sublime,
Though the light vapour from the tepid lymph
Fly off profuse, while yet the lymph itself 350
Exists uninjured—the deserted limbs
Not harmless, thus, can bear the soul's escape,
Doomed to one ruin, and one common grave.
So, from their first crude birth, the vital acts
Of soul and body each solicits each 355
With fond contagion, from the earliest hour
The new-formed fetus quickens in the womb,
No power can sever them devoid of death.—
Since life but flows, then, from the two combined,
Combined alone their natures must subsist. 360
Hence those who hold the body never feels,
But sole the spirit through the body poured,
Each vital fact oppose: for how, resolve,
Could man e'er deem the body crowned with sense
But from such facts instructed and confirmed? 365
True—body feels not when the spirit flies,
For sense from each springs mutual, and, in death,
Not sense alone is lost, but much besides.
To deem the eyes, then, of themselves survey
Nought in existence, while th' interior mind 370
Looks at all nature through them as alone
Through loop-holes, is to trifle—sight itself
The creed absurd opposing every hour.
For oft the eye-ball dares not meet the day,
The flood of light o'erpowering: but were eyes 375
The mind's mere loop-holes, toil were never theirs.
Then too, each portal the reflected beam
Must more obstruct than usher;—and, removed,
Th' exulting mind must drink a double day.
Nor be the sacred doctrine here advanced 380
Urged by DEMOCRITUS, that soul extends
Atom for atom, through the total frame,
With grosser body: for as less of size
The soul's primordial seeds than those that rear
Th' organic structure, so in number too 385
Yield they,—less freely through the limbs diffused.
Hence may'st thou rather deem the soul's pure seeds

Placed at such intervals as just suffice
To rouse alone when needful, through the frame,
Percipient motions. For full oft the dust 390
Blown by the breeze, or fine fugacious chalk,
Lights on the limbs unheeded: so, at eve,
The dews we feel not, nor the silky threads
By dexterous spider spun from spray to spray
That twine around us,—nor the tattered web 395
From some old roof that on the hair descends,
Nor the soft down of feathers, nor the goss
Sportive and light, that scarcely falls at last.
Nor live we conscious, frequent, of the tread
Of animalcules, or the secret path, 400
O'er all our frame, the busy gnat pursues.
For many a primal seed, that rears at large
Each member, must be stimulated first,
Ere the keen atoms of the soul, hence roused,
Engender sense, through every severing space 405
Blending, rebounding, and reblending still.
  But 'tis the mind guards chief the gates of life,
And than the soul with ampler vigour sways.
For, without mind or spirit, soul itself
In no one portion through the man can live 410
E'en for a moment: as companion fond
With speed it follows, dissipated wide,
And leaves the limbs beneath the ice of death:
While he whose mind, whose spirit safe subsists,
Still holds existence, though th' exterior form 415
Throughout be mangled; e'en though much of soul,
Though every limb be lost, he still survives
Deep in the remnant trunk; the vital air
Still breathes, and lingers out his joyless hours.
Thus, though the visual orb be wounded, still, 420
If safe the central pupil, sight remains:
Where'er descends the blow, should this alone
Elude its vengeance, ruin ne'er ensues.
But, if of this the least existent point
Once suffer, though the total else escape, 425
Light fails immediate, and dread darkness reigns.
Such the connexion 'twixt the soul and mind.
  Now mark profound: to teach thee how this soul,

This subtle spirit, with th' external frame
Begot, alike must perish,—next the muse 430
Shall pour forth numbers thine illustrious birth
Well worthy, and with sweetest labour culled.
This chief observe, that either phrase assumes
Here a like import; and that when we urge
The soul is mortal, this the mind includes: 435
Such their joint bond, their close connexion such.
First, having proved, then, this attenuate power
From subtlest atoms reared, minuter far
Than those of water, smoke, or buoyant mist,
Since much in speed it conquers, and, by force 440
Far less, is roused to action—for full oft
E'en the faint phantasms of such forms alone
The soul excites, as when, in deep repose,
The fragrant altar smokes, and vapours rich
Rise to the view—a sense, no doubt, induced 445
From the light phantasms of substantial forms
Floating around us—this already proved,
Judge next, since lymph when bursts th' enclosing vase,
Flows at each fracture, since fugacious smoke,
Since vapours vanish into viewless air, 450
Judge how the soul must dissipate amain,
How sooner perish, and its primal seeds
Speedier dissolve, when once the flesh they quit.
For since this flesh, the vase the soul that bounds,
Bounds it no more when bruised by foreign force, 455
Or of its life-blood robbed,—how canst thou deem
Th' unsolid ether, or that aught more rare
Than flesh itself, the soul can e'er confine?
The mind, moreo'er, as every hour confirms,
Springs with the body, with the body grows, 460
And yields alike to years. The tottering babe,
Weakly of limb, betrays a mind as weak:
But, as his strength matures, his vigorous soul
Ripens in reason, till in equal hour,
As age o'ercomes, and every organ fails, 465
Fail too his mental powers: then raves the tongue,
The judgment raves, the total man declines,
And, in a moment, all alike expires.
Hence the whole nature of this reasoning frame

Must all dissolve, as smoke in ambient air, 470
Hence since, as urged above, all springs alike,
All ripens gradual, and together droops.
As, too, the body feels full oft the force
Of bitter pains, and many a huge disease—
So strives the mind with grief, and cruel care, 475
Hence proved partaker of one common fate.
In many an ill, moreo'er, the flesh sustains,
The judgment suffers: the distracted wretch
Now raving wild, and sinking, now profound
In stupid slumber; his fixt eyeballs stare, 480
His head hangs heavy, sound no more is heard,
Nor the fond visage noticed e'en of those,
Who yet, yet calling back to life, bedew
With many a tear his mouth and cheeks suffused.
Hence must the mind too, with the body cease, 485
Since by diseases thus alike transfixt:
For grief, for sickness, equal, the dread work
Of death accomplish, as each hour confirms.
Why, too, when once the pungent power of wine
Flies through the system, and the blood inflames, 490
Why torpid grows each organ? reels each limb?
Falters the tongue? rebels the maddening mind?
Why swim the eyes? and hiccough, noise and strife,
And each consociate ill their force combine?
Why but that deep the frantic bowl disturbs, 495
Ev'n in the body, the secluded mind?
But what can once be thus disturbed—what once
Impeded—should the hostile power augment,
Must perish, doubtless, void of future days.
Oft, too, some wretch, before our startled sight, 500
Struck, as with lightning, by some keen disease,
Drops sudden:—by the dread attack o'erpowered,
He foams, he groans, he trembles, and he faints;
Now rigid, now convulsed, his labouring lungs
Heave quick, and quivers each exhausted limb. 505
Spread through the frame, so deep the dire disease
Perturbs his spirit; as the briny main
Foams through each wave beneath the tempest's ire.
He groans, since every member smarts with pain,
And from his inmost breast, with wontless toil, 510

Confused, and harsh, articulation springs.
He raves, since soul and spirit are alike
Disturbed throughout, and severed each from each,
As urged above, distracted by the bane.
But when, at length, the morbid cause declines, 515
And the fermenting humours from the heart
Flow back—with staggering foot the man first treads,
Led gradual on to intellect and strength.
  Since, then, the soul such various ills endures,
E'en in this solid frame,—such various modes 520
Feels of severe distraction—canst thou deem,
In the wide air unsheltered and forlorn,
Mid boisterous winds, it ever could exist?
  And as the mind, like body, when diseased
Heals oft, and owns the genial power of drugs, 525
Hence springs a proof that mind is mortal too.
For he the secret soul, or aught besides,
Who fain would change, must lessen or augment
Its primal atoms, or combine anew:
But things immortal ne'er can be transposed, 530
Ne'er take addition, or encounter loss.
For what once changes, by the change alone
Subverts immediate its anterior life.
  Sickening, or healed, then, by balsamic herbs,
The seeds of death alike the soul betrays. 535
So triumph facts o'er all the sophist's art
Precluding answer, doubly silenced here.
  Of man, moreo'er, by slow degrees, we mark,
Limb after limb consume: first the pale toes,
The nails grow livid; in succession next 540
The feet, and legs; till gradual, o'er the frame,
Creeps the chill track of death.—Since, then, the soul
Thus suffers, nor one moment can resist
Sound, and entire, its make must mortal prove.
But should'st thou deem, when thus assailed, it shrinks 545
Back through each member, to one point condensed—
Then must that point, towards which the soul retreats,
Throng with increased sensation: but as this
Time ne'er evinces, it must still disperse
Like tattered shreds by every wind destroyed. 550
  Yet grant the converse, and the soul allow

In those concentrates, gradual who decline ;—
Say what imports it whether wide it waste
From limb to limb, or perish from one point?
Still more and more sensation fails, and life 555
Less and still less its dwindled power sustains.
Since, too, the mind forms part of man, and dwells
In one fixt spot, as dwells the eye or ear,
Or aught besides of sense that governs life ;
And since, moreo'er, the sight, the hand, the nose, 560
Once severed from us, feel not, nor exist,
Dissolving instant—so the mind alike
Lives not alone without th' exterior frame,
Which like a vessel holds it, or aught else,
If aught there be, of bond compacter still. 565
So to the body cleaves th' adhesive mind.
The vital power, moreo'er, of each subsists
Alone conjoint, for mutual is their life.
Nor without body can the soul fulfil
Its destined functions, nor the body live 570
Of soul devoid, participant of sense.
As the bare eye, when rooted from its orb,
Sees nought around it, spirit thus and soul
Nought can accomplish singly ;—hence diffused
Through every vessel, organ, bone, and nerve, 575
Of all that breathes. Nor part their primal seeds
With long interstice, fatal to the power
Of resilition ; rather so confined,
As sensile motions fits them best t' excite :
Such as, at death, when mixt with vacant air, 580
'Twere vain to expect, of all restraint devoid.
For air itself must body first become
Compact and vital, ere the secret soul
Its pores can tenant, or those motions urge,
Urged, during life, through all the sentient frame. 585
Hence doubly flows it why the soul and mind,
One in themselves, of body when disrobed,
And scattered boundless, instant should dissolve.
Since, too, the body the departed soul
Endures not, but with putrid smell decays, 590
Canst thou, then, doubt the soul, when thus effused,
Like smoke flies total, every seed disperst?

And that th' external frame thus sinks defiled
In putrid death, since from their wonted posts
Urged off, through every passage, every pore, 595
Press the percipient seeds, from every limb,
From every membrane o'er the system spread?
And seest thou not, from many a fact hence proved,
That through the total body lives the soul,
And e'en in body severs, seed from seed, 600
Ere thence expelled, and scattered into air?
E'en during life the fractured soul seems oft
From force abrupt half-hurried from her home;
Each vital function failing, and the face,
As though in death, all pallid, changed, and wan. 605
Such the deep swoon evinces, when within
Sinks the faint spirit, and each prostrate power
Pants for its final doom. Such then the force
That mind and body oft alike unnerves
That, but the least augmented, death ensues. 610
Can, then, the soul, thus impotent of frame,
When once disrobed, abandoned, and exposed,
Through the wide air, to every boisterous breeze,
Can it then triumph, dost thou firmly deem,
Not o'er all time, but e'en one moment live? 615
Nor do the dying e'er the soul perceive
Rush out entire, when exiled from the heart,
The bronchial tube first filling, then the throat,
And mouth successive; but at once it fails
In its own region, as each sense alike 620
Fails in its destined theatre of power.
Were, too, its date immortal, man no more,
At his last hour, would mourn the severing blow:
Charmed to throw off his vesture, like the snake,
Or, like the stag his antlers, and be free. 625
Why, too, are wisdom and the mind restrained
To one sole organ, while the feet, the hands,
These never gender? why but that each spot
Exists for some fixt function—nor can e'er
Pervert its destined view? while, through the whole, 630
Nice order reigns by nought preposterous marred.
So flows the tide of things, nor water fire,
Through time, creates, nor fire the sparry frost.

Were, too, the soul immortal, and possest
Of ancient powers when severed from the flesh, 635
Then with new organs must it, or we err,
Be instant re-endowed; for thus alone
Th' infernal shades can tread the shores of hell.
Thus painters feign them, and the bards renowned
Of ancient times—thoughtless that eyes, and nose, 640
And hands, and mouth, to the divided soul
Can ne'er pertain, nor e'en the sense of sound.
And since the total system soul pervades,
And vital action—when some blow severe
Midway divides it, part from part, abrupt, 645
Then must the soul alike be cleft in twain,
Driven with the mangled body. But what thus
Admits partition, and to foreign force
Yields e'en but once, immortal ne'er can be.
Oft, arm'd with scythes, the warlike car, we read, 650
Hot with repeated slaughters, so abrupt
Severs a limb, that o'er the field it lies
With life long quivering, while the hero still
Fights on, of pain unconscious: his high soul
Absorbed so total, he nor heeds the loss 655
Of his broad shield, or shield-supporting hand,
Whirled in the strife of coursers, and of cars.
From this the sword-arm drops, while still the rock
He climbs impetuous; that, perchance, to earth
Felled, on one leg yet vainly strives to rise; 660
While, at his side, his amputated foot
Its trembling toes still moves. Thus, too, the head,
Whene'er dissevered from the vital trunk,
Still keeps its look of life, with open eye
Still stares, till all the gradual soul expire. 665
So should thy blade some serpent's length of tail
Divide, quick-brandishing its furious tongue,
The severed parts writhe, agonized, and broad
Scatter the purple fluid; while himself
Looks round revengeful, and, from pain severe, 670
Gnashes the segments of his mangled frame.
Shall we then say that each divided part
A perfect soul contains? then with such souls
The total form, ere injured, must have thronged.

Hence severs, then, the soul, though close combined, 675
Anterior, with the body; and hence, too,
Both must alike be mortal, since alike
To parts divisible with equal ease.
Grant, too, the soul immortal, and infused,
At earliest birth, within us—whence, resolve, 680
This full oblivion of all past events,
All former life?—for if the soul so change,
That nought remains of memory in its make,
A change so total differs scarce from death.
Thus, what before existed, must have ceased, 685
And on its ruins sprung what now exists.
If the light soul, moreo'er, then only join
The full-formed body, when that body first
Springs into birth, and treads the porch of life,
Ne'er can it then, as though diffused at large, 690
E'en with the vital blood, through all the frame,
Grow with each growing member: but confined,
As in a den, in solitude must dwell,
From the first hour exciting equal sense.
Hence doubly flows it, souls can ne'er exist 695
Of birth devoid, nor free from final fate.
Nor could they, as each daily fact confirms,
If from without infused, the total frame
Fit with such nice precision: for so close
Blend they with every organ, bone, and nerve, 700
That e'en th' enamelled tooth sensation shares;
As oft its ache evinces, or the approach
Of ice abrupt; or when, beneath its gripe,
Grate some harsh pebble mid the subject food.
Nor thus connected could they e'er retreat 705
Safe, and uninjured through the sinuous paths
Of organs, membranes, vessels, bones, and nerves.
But, from without, th' insinuating soul,
If still thou deem through all this frame diffused,
Then, since diffused, much surer must it fail; 710
For what thus flows diffusive, must dissolve,
And perish, doubtless, forced through every pore.
As vanish foods, through every mazy gland,
Through every limb when urged, to different forms
Converting gradual, so the mind, the soul 715

Howe'er entire, when first the flesh it meets
Dissolves by junction; for through every sluice,
Through every organ intricate and fine,
Must percolate its atoms, severed hence,
And decomposed,—and hence the base alone 720
Of that which after sways th' external frame.
  Thus must the soul a natal day possess,
And final grave, an origin and end.
  Fly, too, at death, the soul's pure seeds entire,
Or with the body are there still that rest? 725
If aught remain, then idly must thou deem
The soul immortal, since diminished thus,
And shorn of substance; but if all escape,
If not an atom loiter—whence, I ask,
Rears the putrescent carcass, in its womb, 730
The race of worms? or sport o'er every limb
The boneless, bloodless crowds of things unnamed?
  If from without thou deem their souls they draw,
To each a soul entire, unheeding here
What throngs must flock where dwelt but one before, 735
Pause yet one moment ere thou thus resolve:
Such souls must, then, the vermin seeds themselves
Have wise-selected, and their fabrics reared,
Or into bodies entered ready formed.
But nor can reason, if themselves have raised 740
The wretched buildings, for the toil account,
Nor tell why thus for hunger, and disease,
And shivering cold they thirst, or aught besides
Of ill the body to the soul supplies.
Yet grant them anxious for such vile abodes, 745
Still must the structure far exceed their powers,
Hence reared not by themselves. Nor from without
Could they insinuate into bodies formed;
Since nor adapted to their sinuous pores,
Nor framed for intercourse, and mutual act. 750
  Whence springs the fury that pervades throughout
The ruthless breed of lions? whence the craft
The fox evinces, or the stag's wild fear,
From sire to son through every race propelled?
Whence these and equal passions traced at large, 755
From life's first dawn, generic, through each class?

Whence but that some fixt power of mind descends.
E'en with the lineal seed, through all begot,
Evolving gradual with the gradual growth?
For were the soul immortal, changing oft 760
To different bodies, different tempers, then,
Must mark each order; the HYRCANIAN dog
Oft, then, must dread the high-horned stag's approach;
Hawks fly from doves, e'en man himself turn brute,
And the brute tribes, preposterous, rule the world. 765
Nor heed the sophistry which here contends
That souls oft change the body's change to meet:
For that which changes must dissolve, and die,
Severed its parts, its order all destroyed.
Hence souls must, too, dissolve through every limb, 770
And with the body share one common fate.
But should'st thou urge that human souls their flight
To human forms restrain—then, since once wise,
To folly why relapse? why spring not boys
Replete with wisdom? nor displays the colt 775
The skilful paces of the steed mature?
Why but that some fixt power of mind descends
E'en with the lineal seed through all begot,
Evolving gradual with the gradual growth?
Nor think the soul, too, weakens in a weak 780
And puny system, since most surely then
Doomed to destruction; by the change sustained
Shorn of its vigour, and interior sense.
Why, if endeared not by one common birth,
Thus should it pant in equal hour to reach 785
Perfection with the body? or, reversed,
Why long for freedom when the frame decays?
Fears, then, the soul confinement after death
Mid the foul members? or the dangerous fall
Of its own tottering mansion? But, reflect, 790
What lives immortal, danger ne'er can know.
What, too, so idle, as that souls should throng
Round each vile intercourse, or beast that bears:
Immortal souls! contesting who shall first
Enter the feeble fetus; if, perchance, 795
This not decides them, and all strife precludes,
That who first gains it, claims a prior right.

Trees not in ether, not in ocean clouds,
Nor in the fields can fishes e'er exist;
Nor blood in planks, nor vital juice in stones: 800
But all springs definite in scenes defined.
So in the bosom lives, and there alone,
Mixt with its blood, and nerves, the secret mind:
There only lives,—for could it roam at all,
Then rather should we through the body's self, 805
The heel, or shoulder, or where else it chose,
Oft trace it wandering, than forlorn abroad.
Since e'en in body, then, the soul and mind
Are fixt thus definite—we amply prove
That out of body these can ne'er exist: 810
That when the flesh its certain doom sustains,
The soul must, too, through every limb dissolve.
To deem, moreo'er, that mortal can combine
With aught immortal,—can together live
Concordant, and in mutual duties blend, 815
Is full delirium. Can there be conceived
Aught more unmeet, incongruous, or absurd,
Than with a mortal that a frame should mix
Immortal, doom'd to all its weight of woe?
What lives immortal, too, must so exist, 820
Or from its own solidity, empowered
Each blow to conquer, undivided still,
As primal atoms, long anterior sung;
Or since, like vacuum, of all friction void,
Free from all touch, by impulse unimpaired; 825
Or from the want of circling space, in which
The severing atoms may dissolve and fall;
Such want the boundless whole of nature proves,
And hence eternal—for no place beyond
Spreads, where its seeds could waste; nor, from without,
Can foreign force e'er enter to destroy. 831
But nor, as urged above, exists the mind
All solid, since in all things void combines,
Nor yet all vacuum; nor, from the profound,
Are wanting powers adverse that, into act 835
Once roused tempestuous, the whole mind derange,
Or sever total;—nor deficient space
Spread widely round, through which, in countless modes,

The mental frame may crumble, and dissolve;
Hence not precluded from the gates of death. 840
  But should'st thou still the soul immortal deem,
Since guarded deep from many a mortal wound,
Safe from full many an insult that assails
The health exterior, and since many a blow,
Aimed at its powers, discomfited recoils 845
Ere scarce ourselves the dread approach perceive,
Still far thou wanderest; for the common woes
Excluding that from body draw their birth,
Yet pines she anxious for to-morrow's fate,
Yet shakes with dread, with carking care consumes, 850
Or smarts from conscience of committed crimes.
Add, too, that madness is her own—that oft
All memory fails, and o'er each torpid power,
Creeps the dull pool of lethargy profound.
  Hence, death is nought, and justly claims our scorn, 855
Since with the body thus the soul decays.
And as we now, through long anterior time,
Look back indifferent on the PUNIC hosts
That threatened ROME, when, with the din of war,
All shook tremendous heaven's high cope beneath, 860
And doubtful hung the scale which power should rule
Earth, main, and mortals, with unrivalled sway;
So when we cease, and soul and body once
Meet their joint doom whose union formed our lives,
No ill shall then molest us,—nought alarm 865
Our scattered senses, and dissevered frame,
Though earth with main, or main commix with skies.
  E'en could the soul, the spirit still survive
The wreck corporeal, and perception boast,
To us what boots it, who exist alone 870
The joint result of soul and body mixt?
To us what boots it, should some future time
Collect our atoms, the dismantled frame
Restore entire, and e'en with life relume,
When once the memory of ourselves is fled? 875
We heed not now what erst, in time elapsed,
We have been, nor with anxious heart explore
What from our dust hereafter may arise:
For if thou weigh th' eternal tract of time

Evolved already, and the countless modes 880
In which all matter moves, thou canst not doubt
That oft its atoms have the form assumed
We bear ourselves this moment—though the mind
Recalls not now those scenes of being past;
For many a pause the discontinuous chain 885
Of life has severed, and full many a mode
Of motion sprung to every sense adverse.
He to whom pain hereafter is decreed
Must then exist whene'er that pain arrives.
But as the man, whose atoms erst have lived, 890
Lives now unconscious of ills then sustained,
By death since decomposed, and every power
Of sense and memory scattered—hence we prove
Death holds no sting t' alarm us; that the man
To be who ceases, ceases from all woe; 895
Nor aught imports it that he e'er was born,
When death immortal claims his mortal life.
Should'st thou, then, mark some fool indignant burn
At this alone, that, when existence fails,
His corse may moulder, or in flames consume, 900
Or sate, perchance, the jaws of savage beasts—
Believe him not:—some secret dread still lurks
Of future pain, though e'en his lips deny
That sense or thought can after death exist.
Thus, if I err not, he conceals his creed, 905
Believes not life all-ceases, but that still
Some future self his present will survive.
For he who, living, shudders at the thought
That birds or beasts his frame may soon devour,
That frame divides not, but his self confounds 910
With his own future corse, whose dread decay
This self, he deems, must witness and partake.
Hence heaves his heart indignant at the doom
Of mortal man: heedless that, after death,
No other self shall then himself bemoan, 915
Nor feel the tooth that tears his mangled limbs.
If, too, the tiger's tusk, the vulture's beak,
Be deemed an ill—what lighter ill results
From the red fury of the funeral pyre?
The fulsome tide of honey, o'er the frame 920

Poured, cold and stiffening in the marble tomb?
Or the sunk grave, by earth's vast pressure crushed?
"But thy dear home shall never greet thee more!
No more the best of wives!—thy babes beloved,
Whose haste half-met thee, emulous to snatch 925
The dulcet kiss that roused thy secret soul,
Again shall never hasten!—nor thine arm,
With deed heroic, guard thy country's weal!—
O mournful, mournful fate!" thy friends exclaim,
"One envious hour of these invalued joys 930
Robs thee for ever!"—But they add not here,
"It robs thee, too, of all desire of joy:"
A truth, once uttered, that the mind would free
From every dread, and trouble. "Thou art safe!
The sleep of death protects thee! and secures 935
From all th' unnumbered woes of mortal life!
While we, alas! the sacred urn around
That holds thine ashes, shall insatiate weep,
Nor time destroy th' eternal grief we feel!"
What then has death, if death be mere repose, 940
And quiet only in a peaceful grave,
What has it thus to mar this life of man?
Yet mar it does. E'en o'er the festive board,
The glass while grasping, and with garlands crowned,
The thoughtless maniacs oft indignant roar, 945
"How short the joys of wine!—e'en while we drink
Life ceases, and to-morrow ne'er returns!"
As if, in death, the worst such wretches feared
Were thirst unquenched, parching every nerve,
Or deemed their passions would pursue them still. 950
Not anxious, thus, mankind the world resign
At evening hour when soul and body rest;
Nor would they though that rest were ne'er to end:
Nor thus the day's desire pursues their dreams;
Though then the seeds of sense not wander far 955
From sensile movements, scarcely, oft, allayed,
And quick resumed when starts the soul at morn.
Of much less moment, then, should death be held
Than sleep, if aught can less than that which ne'er
Moment excites whatever; for the crowd 960
Of sensile seeds are wider here disperst;

Nor wakes he e'er to action, and the day,
Whose frame once feels the chilling pause of life.
Were then THE NATURE OF CREATED THINGS
To rise abrupt, and thus repining man 965
Address—"O mortal! whence these useless fears?
This weak, superfluous sorrow? why th' approach
Dread'st thou of death? For if the time elapsed
Have smiled propitious, and not all its gifts,
As though adventured in a leaky vase, 970
Been idly wasted, profitless, and vain—
Why quitt'st thou not, thou fool! the feast of life
Filled,—and with mind all panting for repose?
But if thyself have squandered every boon,
And of the past grown weary—why demand 975
More days to kill, more blessings to pervert,
Nor rather headlong hasten to thine end?
For nothing further can my powers devise
To please thee;—things for ever things succeed
Unchanged,—and would do, though revolving years 980
Should spare thy vigour, and thy brittle frame
Live o'er all time: e'en amplier would'st thou then
Mark how unvaried all creation moves."—
Were NATURE thus t' address us, could we fail
To feel the justice of her keen rebuke? 985
So true the picture, the advice so sage!
But to the wretch who moans th' approach of death
With grief unmeasured, louder might she raise
Her voice severe—"Vile coward! dry thine eyes—
Hence with thy snivelling sorrows, and depart!" 990
Should he, moreo'er, have past man's mid-day hour—
"What! thou lament? already who hast reaped
An ample harvest? by desiring thus
The past once more, the present thou abhorr'st,
And life flies on imperfect, unenjoyed, 995
And death untimely meets thee, ere thy soul,
Cloyed with the banquet, is prepared to rise.
Leave, then, to others bliss thy years should shun;
Come, cheerful leave it, since still leave thou must."
Justly I deem might NATURE thus reprove: 1000
For, through creation, old to young resigns,
And this from that matures; nor aught descends

To the dread gulfs, the fancied shades of hell.
The mass material must survive entire
To feed succeeding ages, which, in turn, 1005
Like thee shall flourish, and like thee shall die;
Nor more the present ruins than the past.
Thus things from things ascend; and life exists
To none a freehold, but a use to all.
Reflect, moreo'er, how less than nought to us 1010
Weighs the long portion of eternal time
Fled ere our birth: so, too, the future weighs
When death dissolves us. What of horror, then,
Dwells there in death? what gloomy, what austere?
Can there be elsewhere slumber half so sound? 1015
The tales of hell exist not in the grave,
But here, and curse us living. TANTALUS,
With broad, rough rock impending o'er his head,
And crazed with terror, there is never seen:
But terror dwells with mortals—fate they fear, 1020
And fortune, and a host of fancied gods.
Nor TITYUS there exists, the prey of birds.
Nor, though he did, could these the victim's breast
Consume for ever; e'en though his wide bulk,
Not thrice three acres merely might extend, 1025
But cover the vast globe; nor could he bear
Eternal pain, nor yield perpetual food.
But he is TITYUS, and by vultures torn,
Whose anxious breast the rage of love devours;
Or aught of passion equal in its force. 1030
Here, too, is Sisyphus—the man who pants
For public honours, and the giddy crowd
Caresses ever, ever but in vain.
For thus to toil for power, itself at best
A bubble, and that bubble ne'er to boast, 1035
Yet still toil on—is doubtless to roll back,
Up the high hill, the huge, stern, struggling stone;
That which, the steep peak once urged up, rebounds
Rapid, resistless, over all the plain.
Then, too, to feed th' ungrateful mind, and fill 1040
With every good, while still it craves for more,
(As feed mankind the seasons in their turn,
With fruits, and endless beauties, while themselves

Still riot on, and never have enough,)
This, or I err, the fable well unfolds, 1045
Feigned of the damsels doomed, in flower of youth,
To fill for ever the still leaking urn.
The FURIES, CERBERUS, and HELL itself
Of light devoid, and belching from its jaws
Tremendous fires, live not, nor can they live: 1050
But well they paint the dread of justice here
For crimes atrocious, the reward of guilt,
The scourge, the wheel, the block, the dungeon deep,
The base-born hangman, the TARPEIAN cliff;
Which, though the villain 'scape, his conscious soul 1055
Still fears perpetual, torturing all his days,
And still foreboding heavier pangs at death.
Hence earth itself to fools becomes a hell.
Thus ponder oft, retired: ANCUS the good,
E'en he has closed his eyes on mortal things; 1060
A man, thou coward! worthier far than thou!
Thousands, moreo'er, like him of crowns possest,
Have fall'n like him, and all their pomp resigned.
E'en he who wandered o'er the mighty main,
Led on his legions, and first oped the way 1065
To tread on foot th' unfathomed gulfs below,
He who thus braved the billows, and the storms,
Has closed his eye-lids, and his soul resigned.—
SCIPIO, the war's dread thunderbolt, the scourge
Of ransacked TYRE, sleeps, like the slave, inhumed. 1070
Add, too, the founders of the graceful arts,
And schools erudite;—add th' immortal bards;
Add HOMER'S self the muses' realm who rules;
These all, like meaner mortals, rest in peace.—
When hoary hairs DEMOCRITUS forewarned 1075
His mental powers were hastening to decay,
Quick he uprose, and midway met his fate.—
E'en he is fallen, his lamp of life extinct,
Th' illustrious EPICURUS, whose vast mind
Triumphant rose o'er all men, and excelled, 1080
As, in the heavens, the sun excels the stars.
And dost thou murmur, and indignant die,
Whose life, while living, scarcely death exceeds?
Thou! who in sleep devourest half thy days?

And, e'en awake, who snorest, dreaming still, 1085
And torturing all thy mind with vain alarms?
Thou! who lamentest, oft, unknowing why,
Urged on, with fear intoxicated deep,
And in a maze of mental errors lost?
Did men but think, and oft to think they seem, 1090
That from themselves their heaviest sorrows rise,
And knew they too whence thus themselves create
These bosom sufferings—seldom should we see
Life spent as now each passing hour portrays.
All pant perpetual for they know not what, 1095
Nor learn by searching—changing their abodes,
As though the change would leave their load behind.
This, from mere listlessness, his mansion flies;
Straight he returns;—'tis listless all abroad.
That to his villa posts, with rapid wheels, 1100
As though the building were in flames, and called
His instant aid.—No sooner treads his foot
The sounding hall, than, on the sofa thrown,
He yawns disgusted—or indulges sleep,
And seeks oblivion; or, perchance, he starts, 1105
And towards the town drives back with equal speed.
Thus each his self would fly, that self which still
Haunts every step, and every pain creates,
Heedless of what torments him: which if clear
The wanderer traced, his restless soul, at once 1110
The world forsaking, and the world's vain boasts,
Would scan THE NATURE OF CREATED THINGS.
For little weighs the passing hour of time
When with eternity compared, that state
Which, after death, to mortals yet remains. 1115
Through what vast woes this wild desire of life
Drives us, afraid! what dangers, and what toils!
Yet death still hastens, nor can mortal man,
With all his efforts, turn th' unerring shaft.
Life, through its circuit too, is still the same, 1120
Nor can it boast one source of new delight.
The bliss we covet seems, at distant view,
To all superior; but, when once possest,
It cloys, we spurn it, and another call.
Yet the same thirst of life corrodes us still, 1125

Though doubtful of to-morrow, and the fate
To-morrow brings—our blessing, or our curse.
E'en could we life elongate, we should ne'er
Subtract one moment from the reign of death,
Nor the deep slumber of the grave curtail. 1130
O'er ages could we triumph—death alike
Remains eternal—nor of shorter date
To him who yesterday the light forsook,
Than him who died full many a year before.

BOOK IV.

PIERIAN paths I tread untrod before.
Sweet are the springing founts with nectar new,
Sweet the new flowers that bloom; but sweeter still
Those flowers to pluck, and weave a roseate wreath
The muses yet to mortals ne'er have deigned. 5
With joy the subject I pursue, and free
The captive mind from Superstition's yoke:
With joy th' obscure illume; in liquid verse,
Graceful and clear, depicting all surveyed:
By reason guided. For as oft, benign, 10
The sapient nurse, when anxious to enforce
On the pale boy the wormwood's bitter draught,
With luscious honey tints the goblet's edge,
Deceiving thus, while yet unused to guile,
His unsuspecting lip, till deep he drinks, 15
And gathers vigour from the venial cheat;—
So I, since dull the subject, and the world
Abashed recoils; would fain, in honeyed phrase,
Tuned by the muses, to thine ear recite
Its vast concerns; if haply I may hope 20
To fix thine audience, while the flowing verse
Unfolds the nature, and the use of things.
Since, then, our earlier strain the fact has proved
Of seeds primordial; how, in various forms,
Oft differing each from each, at will they roam, 25

Urged on by ceaseless motion,—proved the mode
Whence all existing, thence exists alone:
Since, too, the mind's deep nature we have traced,
Whence first it springs, with body how unites,
And how, when severed, to primordial seeds 30
Again it lapses;—haste we next t' unfold
Those forms minute, a theme connected close,
Termed by the learned IMAGES OF THINGS:
Forms that, like pellicles, when once thrown off
Clear from the surface of whate'er exists, 35
Float unrestrained through ether. Fearful these
Oft through the day, when obvious to the sense,
But chief at midnight, when in dreams we view
Dire shapes and apparitions, from the light
Shut out for ever, and each languid limb 40
With horror gaunt convulsing in its sleep.
For deem not thou the soul can e'er escape
From hell profound; that spectres of the dead
Can haunt the living; or that aught we feel
One hour survives when once the stroke of fate 45
Severs the mind from body, and remands
Each to th' appropriate atoms whence they sprang.
Hence hold we firm that effigies of things,
Fine, filmy floscules from the surface fly,
Like peels, or membranes, of whate'er exists; 50
The form precise, how wide soe'er diffused,
Maintaining still the parent body boasts.
This e'en the dull may learn; since sight itself
Marks the light film from many a substance urged,
Oft loosely floating, as the fume impure 55
From crackling faggots, or the brighter blaze
Of red, resplendent furnace; oft compact,
And firm of texture as the silken veil
Thrown from the grasshopper, when summer wanes,
By many a month worn out; or that the calf 60
Casts on his birth-day; or the spotted robe
Rent from the snake, that trembles on the brier,
The brier full oft with spoils like these bedeckt.
Since these exist, then, floscules rarer still
May, too, be exiled from the face of things: 65
For why the grosser, palpable to sight,

Should rather thus exfoliate, than the flake
Of finer texture that all sight eludes,
The mind discerns not; for such viewless flakes
Live, doubtless, o'er each surface loose diffused, 70
Ranged ever equal, and with ampler ease
Dispelled, since gendered of a lighter frame,
And in the front of objects fixt supreme.
For sight not merely bodies marks minute
Thrown from th' interior, or the base profound, 75
As proved already, but, like rainbow hues,
Poured from the surface. This the crowd surveys
Oft in the theatre, whose curtains broad,
Bedecked with crimson, yellow, or the tint
Of steel cerulean, from their fluted heights 80
Wave tremulous; and, o'er the scene beneath,
Each marble statue, and the rising rows
Of rank and beauty, fling their tint superb.
While as the walls, with ampler shade repel
The garish noon-beam, every object round 85
Laughs with a deeper dye, and wears profuse
A lovelier lustre, ravished from the day.
As then the trembling drapery ejects
Hues from its surface, superficial too
From every substance effigies minute 90
Must stream perpetual, each alike discharged.
And hence from all things vestiges there are
Of subtlest texture hovering through the void,
All sight evading when but simply poured.
Each essence, vapour, fume, or aught alike 95
Attenuate, hence alone flows void of form,
That, gendered deep within, through tortuous paths
Loose, and disjoined, it struggles to the day;
While the light quintessence of utmost hues
Streams unobstructed as supremely placed. 100
The main, moreo'er, the mirror, or aught else
Of polished front, each object full reflects
With perfect semblance. Whence this semblance fair
But from supernal images expelled?
These, as more gross, we mark; yet why the gross 105
Should rather thus exfoliate than the flake
Of subtler texture, reason ne'er can prove.

Hence effigies there are from all things poured
Of nice resemblance, and the fairest web;
Which, though, when single, from the sight concealed, 110
When close reflected in perpetual stream
From the clear mirror, obvious meet the view.
Nor can the sophist other cause adduce
Whence springs the picture so correctly just.
Come, now, and mark with what attenuate frame 115
Such pictures live. This the prime seeds of things
So fugitive to sense, so less than aught
The keenest sight can pierce, perchance may prove,
How subtle these, then, thus the muse explains.
First, there are insects so minute, the view 120
Not half their puny members can discern.
What here are organs? what intestines here?
The globule what that forms their heart or eye?
Their tiny limbs? their tendons? but o'er all
What the nice atoms whence the soul proceeds? 125
Each part so subtile, so minute the whole.
Next, each wild herb that from its branches pours
Ungrateful odours, southernwood severe,
The rueful wormwood, centaury, or that
Famed for all cures, termed all-heal by the crowd, 130
These, by the lightest finger brushed, emit
Myriads of effigies in various modes
Void of all strength, wide hovering unperceived.
Such who can calculate? what powers of mind
Scan their light textures, or their woof unfold? 135
Yet deem not thou such images alone
From things themselves emane; spontaneous, too,
Spring they in heaven above, combining strange,
Borne through th' aerial realms in modes diverse,
Their forms for ever shifting, till at length 140
Nought lives on earth the phantoms never ape.
Hence clouds concrete, th' aerial vault serene
Shadowing with moisture, grateful as it moves:
Hence, shapes gigantic spread, protruding broad
Their interposing features; mountains hence, 145
And mountain-rocks, torn from their base abrupt,
Seem oft to hover, blotting now the sun
With front opposed, now deep diffused behind,

Gendering fresh clouds, a monster each to view.
  Mark, now, how swift such phantoms form—how swift
Exhale from all things, and, when formed, dissolve. 151
A steam there is that from the face of things
Pours forth perpetual. This, when urged amain
On porous textures, as the clothes we wear,
Pierces entire: when bold with wood, or stone 155
It dares conflict, the subtile membrane breaks,
Nor aught returns of semblance; but when flung
On dense and splendid objects (foremost such
Shines the pure mirror) nought of these ensues:
For then nor pierces the light lymph, nor quick 160
Breaks ere the mirror give the semblance sound.
Hence springs the vision, every object hence,
Opposed to splendours, pours perpetual forth
Its mimic likeness; and, perpetual too,
Hence the pure effluence that the likeness yields 165
Must fleetly rush, reiterated urged.
As from the sun each moment many a ray
Must flow that things with lustre may be filled,
So from each object many an image light
Streams without end; for, turn howe'er thou please 170
The splendid plate, still the same semblance springs,
Punctual in form, appropriate in its dyes.
  Oft, too, the lucid front of heaven serene
Blackens abrupt; in subtlest vapours veiled
So blackens, fancy may conceive all hell 175
Had with his direst shades the welkin stormed,
Shivering with horror every human nerve.
But what such vapours to the films of things?
These who can calculate? what powers of mind
Scan their light textures, or their woof unfold? 180
  Thus proved attenuate, mark, benignant, next,
Their keen rapidity: with what vast speed
Fleet they through ether, with elastic wing
Conquering dull time, urged various to their goals.
This shall the muse in melodies evince 185
More sweet than prolix; as the swan's lone dirge
Flows forth superior to the clamorous croak
Of countless cranes, by every wind disperst.
  Know, then, th' attenuate substance must move quick;

But few th' exceptions. Hence the rapid race 190
Of light, and lustre from th' effusive sun,
Since these, too, spring from atoms most minute,
With ease protruded, by posterior force
Urged on; for light for ever light succeeds,
And floods of splendour floods of splendour drive. 195
Hence, from like cause, the semblances of things
Through countless space must instantaneous rush;
For equal powers propellant press behind,
And the same texture rears them that pervades
Forms most compact, and fills th' aerial void. 200
If, too, those particles of things that lurk
Deep in th' interior, oft sublimely bound,
And quit the surface, as the sun's pure light,
And lustre fair, if instant these we view
Rush through all space, o'er earth and main diffuse, 205
And heaven's high arch, by utmost lightness winged;
Say, what the speed of atoms placed supreme,
Poured from the front of things, by nought delayed?
Seest thou not these, in the same point of time,
With swifter flight through ampler bounds must dart 210
Than the blue radiance that through ether streams?
To proofs thus cogent of the rapid race
Of insubstantial semblances, adjoin
This fact decisive; that, when once at night,
Beneath the spangled concave, gleams the vase 215
Filled from the bubbling brook, the curious eye
Marks in the lymph, responsive, every star
That strews with silver all the radiant pole.
Seest thou not hence, then, in what point of time
Th' ethereal image darts from heaven to earth? 220
Hence doubly flows it such stupendous forms
Must crowd th' horizon, and the sight compel,
Of things defined born ceaseless. From the sun
Thus heat exhales, cold, dewy damp from streams,
And the rough spray from ocean, with fierce fang 225
Gnawing the mound that dares resist its waves.
Thus sounds, too, hover in the breezy air;
And, when the beach we traverse, oft the tongue
Smarts with the briny vapour: or if chance,
By dexterous leech, fell wormwood near be bruised, 230

We taste th' essential bitter, and abhor.
Thus some light effluence streams from all create,
Streams forth for ever, void of dull repose,
Towards every point diffused: for man perceives,
Where'er his station, sight alike exists, 235
The sense of fluent odours, and of sounds.
And as, moreo'er, th' essaying hand decides
Oft in the dark an object as precise
As the keen eye at mid-day,—hence we deem
Touch and the sight by equal causes swayed. 240
Thus, if a cube we handle, and, at night,
Its shape assure us, what but the mere shape
Proves the same substance is a cube by day?—
Hence shapes, hence images alone create
All we survey, of vision the sole cause: 245
And hence from every object forms like these
Towards every point must radiate; since the eye,
Source of all sight, where'er its orb inclines,
Sees all that moves, in shape and hue precise:
And since such semblances alone decide 250
How distant dwells each substance we discern.
These sole decide; for every film exhaled
Drives on immediate the recumbent air
Placed 'twixt the visual orb and object viewed.
Then fleets its total column, o'er the ball 255
Rushing amain, till all its gradual length
Strikes on the sentient pupil, and retires.
Hence how far distant judge we things exist;
And as an ampler air, and larger tide
Of friction goad the vision, cautious, thus, 260
Deem more remote th' objective substance lies.
While such the speed evinced, at once we tell
The thing surveyed, its distance and its kind.
Nor wondrous this, that, though, when singly urged,
Each separate image viewless strikes the sight, 265
The parent form springs obvious. When severe
Blows the fresh breeze, each particle of wind,
Of bitter cold the sense can ne'er discern,
But the full body rather: then the frame
Shrinks as though blows from some exterior foe 270
Were plied perpetual, every nerve assailed.

When, too, the finger o'er the polished spar
Lets fall its weight, it touches then alone
The crystal hues, and surface; yet nor hues
Nor surface feels it, but the hardness sole 275
Its total body boasts, compact and firm.
  Now next unfold we whence the semblance seen
In the clear mirror, far beyond recedes,
Or so pretends, deceptive. Sleights like these
We trace for ever when th' attentive eye 280
Peeps in some hall, beyond th' unfolded doors,
And through their vista marks the scene without.
In both a twin, a double tide of air
Strikes on the vision. In the mansion thus
First floats th' interior ether, bounded close 285
By the broad portals opening right and left,
Then light external, and another air
Assail the pupil, and the real scene
At last developes. Thus the semblance too,
The mirror's self projects, as towards the sight 290
It yet, yet tends, the midway air protrudes
Placed 'twixt the visual orb and object viewed;
Whence first th' aerial tide assaults us ere
Conspicuous springs the mirror; which surveyed,
Next instant flows the semblance from ourselves 295
Ceaseless exhaled, and from the splendid plate
Reflected punctual, visiting in turn
The sentient eye-ball, and in turn its tide
Of air first forcing o'er the goaded view;
Thus doubly distant, and the glass beyond 300
Painting the mimic image we discern.
Hence not the meanest marvel can attach
To forms reflected from the fulgent plain
Through two-fold airs, by the twin tide resolved.
  The part, too, of the semblance that to us 305
The right creates, seems, in the mirror, left:
Hence springs the vision, that when once the film
Strikes on the level radiance, it rebounds
Unaltered never, by th' elastic blow
In every trait reversed: as when we dash, 310
'Gainst some broad beam, the new-made mask of clay
Soft yet, and pliant, if with front direct

It bear the blow, the hollow frame inverts:
Each feature then transposes, the right eye
Claims the left side, the left the right usurps. 315
From mirror, too, to mirror may we spread
The playful image, till its like, with ease,
Be thrice, or ampler doubled; and till nought
Lurk so retired, so deep behind, so hid
In tortuous angles, but that many a plate, 320
Rightly disposed, may yet through every maze
Drag forth the latent landscape, and at large
E'en in the mansion's central depths display.
So glides from glass to glass the semblance true
By each transposed in order, right and left 325
Changing alternate, and again restored.
Mirrors there are, moreo'er, of shape rotund
With flexile sides like mortals, that present
To right or left each object free from change.
Thus solve the problem that the convex plate, 330
Like a twin mirror, twice the scene reflects
Ere yet it touch the vision; or, perchance,
Th' approaching image turns completely round,
A turn the flexile splendour proves precise.—
Then the light image, too, with us affects 335
To move responsive, every gesture caught.
Hence the deception, that whate'er the part
Of the pure plate relinquished, thence no more
Flies the fleet semblance; fate's eternal laws
Deciding ceaseless that the film propelled 340
Must bear each variance of the parent form.
Such are the sleights of mirrors. Mark we next,
How hates the eye-ball every gaudy glare;
How darkens in the sun when poured direct;
Such his vast power. Yet here that power alike 345
Flows from a stream of effigies through heaven
Impetuous flung, the tender pupil oft
Wounding severely; and, at times, so fierce
Rushes the radiant tide, the total orb
Burns with the fiery particles contained. 350
The jaundiced thus, not unaccordant, see
All clad in yellow, many a yellow seed
Forced from their frames, the semblances of things

Accosting frequent; and the lurid eye,
Deep, too, imbued with its contagious hue, 355
Painting each image that its disc assails.
Things in the light, though in the dark ourselves,
We mark conspicuous; for as the black air
Adjoining, first usurps th' expanded eye,
Quick flows th' illumined tide, from every shade 360
Purging the pupil, formed of finer seeds,
More potent far, more voluble in act.
Hence as at once the visual orb it clears,
Till then obstructed, and with lustre fills,
Each floating image, in the light exhaled, 365
Next rushes, and its stimulus applies.
But when, reversed, from day to dark we look,
We see not, for the stream of shadowy air
That last arrives, of grosser texture wrought,
Fills every avenue, each optic nerve 370
Clogs, and the semblances of things arrests.
View yon square turrets, too, that guard our state
From hills remote, and each appears rotund.
Hence solve the vision; that, at distance seen,
All angles soften; first surveyed obtuse, 375
Then fading total; the dilated orb
Attaining never, or devoid of force:
For the light image, through the fluttering air
As swift it glides, abrades at every point.
Hence, as each angle flies the prying sight, 380
Cylindric seems the structure, distant far
From the true circle, but cylindric still.
The shade, moreo'er, moves with us in the sun,
Attends our steps, and every gesture apes;
Moves, or so seems, if terms like these apply 385
To aught like shadow, the mere void alone
Of light, and lustre. Such the phase evinced,
Thou thus resolve it; that, whene'er we walk
Beneath the solar blaze aslant propelled,
Our interposing limbs perforce must hide 390
The heavenly ray from spots illumined else,
And still illumed the moment we forsake:
Hence must the shadow with the moving frame
Seem, too, to move most punctual; for the streams

Of new-born radiance that for ever flow 395
Die instant, as the filaments of wool
In fiercest flames, by streams succeeded still:
Whence quick of light may every spot be robbed,
And quick relumed, the negro shade expelled.
Yet deem not thou from this, or aught besides, 400
The vision e'er can err: its office sole
Tells where is shine or shadow, while the rest,
Whether the shining current live the same,
Or change perpetual; whether the dark shade
Wait on each step progressive, or the dogm 405
Just urged be truth,—all this the mind alone
Weighs, and determines; for th' exterior sight
Scans not the powers of things; so blame not thou
Th' unerring vision for the mind's defects.
Th' advancing bark seems to the crew at rest; 410
At rest, advancing; and the hills and vales,
Near which we voyage, seem compelled astern.
Thus seem the stars, though reason proves their flight,
Fixt to th' ethereal vault, o'er whose broad bounds
Their lucid course they steer, and rise and set 415
Alternate; thus the sun and moon alike
Move not to sight, though moving without end.
The mountain rocks, whose severed sides admit
Whole fleets between, look in the distant deep
But one continuous chain, one solid isle. 420
So to the wanton boy, whom many a twirl
Makes dizzy, pillars, pictures, walls alike
Roll rapid round, and menace with their fall.
When first the rosy dawn, with trembling fires,
Peeps o'er the mountains, mountains where the sun 425
Rests all his rising radiance,—the bright pomp
Seems scarce two thousand bow-shots from ourselves;
Oft might five hundred reach it: yet between
These rich-wrought mountains and the solar disc
Spreads many an ocean, many a heaven unknown, 430
Of span immense, and many a mighty realm
Peopled with nations, and the brutal tribes.
So in the puny pools inch-high that fill,
When showers descend, the hollows in our streets,
A prospect opens, earth as deep below 435

As bends o'er earth th' ethereal vault sublime:
Where may'st thou trace the flitting clouds, the heavens,
And heavenly orbs in wondrous guise displayed.
  Thus, too, when mounted on the mettled steed,
Full in the stream then plunge,—if midway o'er 440
Thou rest—the stationary steed seems still
With the broad torrent struggling, up the tide
Urging his dauntless chest, while all around
With equal motion looks alike o'erpowered.
  The pillared portico, whose aisle throughout 445
In breadth ne'er varies, propt through all its course
With equal columns, from its entrance viewed
Seems lessening gradual, side approaching side,
And ceiling floor, till at its utmost bound
All, like the cone, ends in a point acute. 450
  To those at sea the restless sun ascends,
And sets in ocean, quenching there his fires;
For nought but skies and ocean meet their view:
So blame not thou that thus the sight reports.
  E'en while in port the bark, to those unskilled, 455
Oft seems distrest, and with disabled arms
Against the tide contending: for though straight
Looks the tough length of oar the brine above,
And straight the helm superior, all below
Seems broke abrupt, refracted by the wave, 460
Inversed, and floating near the rory brim.—
  When through the welkin the wild winds at night
Drive the light clouds, the starry gems of heaven
Seem forced athwart them, in perplext career
Urged rapid on, wide wandering from their paths. 465
  If but one eye-ball lightly thou compress
Below, with casual finger, all around
Looks instant double; every taper flames
With double lights, with double garniture
The mansion labours, and each friend assumes, 470
Preposterous sight! two faces, and two forms.
  So, too, when sleep his opiate wand has stretched
And lulled each limb in soft and sound repose,
Still watchful seem we, every member still
Feels in full motion: wrapt in midnight gloom 475
The cheerful day still smiles: though close pent up,

O'er main, and mountains, hills and heavens we roam,
Tread with firm foot the champaign; grave debates
Hear mid the noiseless solitude that reigns,
And e'en while silent loudly make reply. 480
  These, and a thousand visions, strange alike,
Assault our senses, and would fain deceive.
But vain th' attempt: since, though full oft we err,
'Tis mind misguides us with results unsound,
That deeming seen which ne'er the sight surveys. 485
For nought more arduous than to sever forms
True, from ideal by the mind begot.
  Who holds that nought is known, denies he knows
E'en this, thus owning that he nothing knows.
With such I ne'er could reason, who, with face 490
Retorted, treads the ground just trod before.
Yet grant e'en this he knows; since nought exists
Of truth in things, whence learns he what to know,
Or what not know? what things can give him first
The notion crude of what is false, or true? 495
What prove aught doubtful, or of doubt devoid?
  Search, and this earliest notion thou wilt find
Of truth and falsehood from the senses drawn,
Nor aught can e'er refute them: for what once,
By truths opposed, their falsehood can detect, 500
Must claim a trust far ampler than themselves.
Yet what than these an ampler trust can claim?
Can reason, born forsooth of erring sense,
Impeach those senses whence along it springs?
And which, if false, itself can ne'er be true. 505
Can sight correct the ears? can ears the touch?
Or touch the tongue's fine flavour? or, o'er all,
Can smell triumphant rise? absurd the thought.
For every sense a separate function boasts,
A power prescribed; and hence or soft or hard, 510
Or hot or cold, to its appropriate sense
Alone appeals. The gaudy train of hues,
With their light shades, appropriate thus alike
Perceive we; tastes appropriate powers possess;
Appropriate, sounds and odours: and hence, too, 515
One sense another ne'er can contravene,
Nor e'en correct itself; since, every hour,

In every act each claims an equal faith:
So what the senses notice must be true.—
E'en though the mind no real cause could urge 520
Why what is square when present, when remote
Cylindric seems, 'twere dangerous less t' adopt
A cause unsound, than rashly yield at once
All that we grasp of truth and surety most,
Rend all reliance, and root up, forlorn, 525
The first, firm principles of life and health.
For not alone fails reason, life itself
Ends instant, if the senses thou disturb;
And dare some dangerous precipice, or aught
Against warned equal, spurning what is safe. 530
Hence all against the senses urged is vain,
Mere idle rant, and hollow pomp of words.
As, in a building, if the first lines err,
If aught impede the plummet, or the rule
From its just angles deviate but a hair, 535
The total edifice must rise untrue,
Recumbent, curved, o'erhanging, void of grace,
Tumbling, or tumbled from this first defect,
So must all reason prove unsound, deduced
From things created, if the senses err. 540
Thus perfect SIGHT, unfold we next, a task
Not arduous, how each other sense perceives.
SOUND, and the VOICE, then, first are felt when deep
Pierce their light corpuscles the mazy ear,
And rouse impulsive; for corporeal, too, 545
Are sound and voice, since each the sense impels.
Thus voice full oft abrades the palate; sound,
Forth issuing from the lungs, th' aerial tube
Roughens: for when the vocal atoms press
With throng unusual through the bronchial straits, 550
Th' elastic stream their tender tunics goads,
And the whole passage smarts with pain severe.
Hence, doubtless, voice and words sonorous spring
From seeds corporeal, armed with power to wound.
Nor here forget how much the speaker wastes, 555
How faints enervate, shorn of vital force,
Who from the dawn harangues till night's black shade;
How doubly wastes if loud th' oration urged.

Corporeal, hence, the voice must prove, since he
Who long debates, corporeal loss sustains. 560
Roughness, moreo'er, of voice, from atoms rough,
From smooth its suavity perpetual flows:
Nor of like figure wind they through the ear
When roars the deep-toned trumpet, or the horn
With hoarse, harsh gamut strains its serpent throat; 565
And when the swan, amid the pangs of death,
Pours o'er PARNASSUS his last, liquid dirge.
The vocal tide thus reared, when from the lungs
Sublime we press it through the bronchial duct,
The tongue dædalian, and vivacious lips 570
Mould it to words, articulated nice.
And when not far th' irruptive voice is thrown
It strikes emphatic, and is heard distinct,
Unchanged, uninjured every primal seed.
But when at distance urged, the severing air 575
Must break each sentence, and the wandering voice
Through the long medium all connexion lose.
And thus, though sounds attract us, we collect
Nought they should teach, so blended and destroyed.
When, mid the gaping throng, the crier loud 580
Bawls out his mandate, each its purport hears.
Hence, too, the voice to vocicles minute
Severs abrupt, since every ear alike
Drinks in each tone with equal clearness felt;
While what its nerve ne'er reaches, wide diffused, 585
Wastes through all ether; or, if aught, perchance,
Strike some compact enclosure, it rebounds
In faithless speech, mere semblances of words.
Whence may'st thou solve, ingenuous! to the world
The rise of echoes, formed in desert scenes, 590
Mid rocks, and mountains, mocking every sound,
When late we wander through their solemn glooms,
And, with loud voice, some lost companion call.
And oft re-echoes echo till the peal
Ring seven times round: so rock to rock repels 595
The mimic shout, re-iterated close.
Here haunt the goat-foot satyrs, and the nymphs,
As rustics tell, and fauns whose frolic dance
And midnight revels oft, they say, are heard

Breaking the noiseless silence; while soft strains 600
Melodious issue, and the vocal band
Strike to their madrigals the plaintive lyre.
Such, feign they, sees the shepherd, obvious oft,
Led on by PAN, with pine-leaf garland crowned,
And seven-mouthed reed his labouring lip beneath, 605
Waking the woodland MUSE with ceaseless song.
These, and a thousand legends wilder still
Recount they; haply lest their desert homes
Seem of the gods abandoned, boastful hence
Of sights prodigious; or by cause, perchance, 610
More trivial urged, for ne'er was tale so wild
Feigned, but the crowd would drink with greedy ears.
Nor strange, moreo'er, conceive it that the voice
Full many a scene should pierce, the nerve of sound
Rousing, where sight's keen gaze can never reach. 615
For voice unhurt through flexile tubes can wind;
But the light image never; since the pore
When not direct, as that of lucid glass
Which all transmits, abrades it and destroys.—
Voice through the total scene, too, spreads alike; 620
Since, when once formed, to vocicles minute
It breaks innumerous, as sparks at night
To countless sparklings; hence the scene throughout
O'erflows with sound, through every winding felt.
Yet visual images, when once propelled, 625
Rush but in lines direct; whence none can see
Things pent above, though voice th' enclosure pierce.
Yet voice itself, thus piercing, faints obtuse,
Heard indistinct, and rather sound than sense.
To TASTES proceed we: whence the tongue's nice powers
Spring, and the curious palate, full t' unfold.— 631
First tastes the tongue, then, when the sturdy teeth
Wring from the food its juices; as though sponge,
Pregnant with water, by th' embracing hand
Were squeezed to dryness. O'er the pores perplext 635
Of tongue and palate next th' excreted lymph
Rushes amain; and, when from atoms reared
Smooth and rotund, the masticating sense
Through its moist temple swells with dear delight:
But when the rough assail it, it recoils 640

And shrinks abhorrent, wounded in the strife.
Last, flows the trickling pleasure, or the pain,
Back towards the tonsils where the gorge first opes;
There flows and ceases, nothing felt beyond
Of joy or suffering through the frame diffused. 645
For nought imports it what the food employed,
If but the stomach into genial tides
Concoct it sole, and pour through every limb.
Oft find we, too, that various frames demand
As various viands; and that what to some 650
Seems harsh and hateful, some perpetual deem
Delicious most; while e'en so vast, at times,
The strange discordance, that what poisons this
To that proves healthful, and prolongates life.
Thus dies the snake that human spittle tastes, 655
Worked into madness, self-destroyed; and thus
Wild hellebore, that goats and quails matures,
By man once swallowed stamps his instant fate.
These facts to solve, thy mind must first retrace
A doctrine earlier urged, that all things hold 660
Deep in their texture seeds unlike of form,
And that each sentient class by food sustained,
Since large the variance of its outer make,
And stamp generic, must from nutrient seeds
Of form unlike be reared, and powers diverse. 665
But if its seeds thus differ, different too
Must prove in shape the fine absorbent pores
Whence draws the frame its nurture, o'er the tongue
Spread bibulous, the palate, and the limbs;
Now large, now small, triangular, rotund, 670
Squares, polygons, in every changeful mode.
For to the varying seed the varying duct
With nicest adaptation must respond.
And, hence, when foods of bitter taste to some
Prove sweet to others, where the flavour charms, 675
The smoothest seeds alone the palate drinks,
Through all its pores inebriate; while, reversed,
Where aught offends, those jagged more and rough
Pierce the nice tubes, and tear their tender mouths.
Thus all alike springs obvious. When the frame, 680
From bile o'erflowing, or some cause as fierce,

Sickens with fever, every organ shakes
With tumult dire, through all its texture changed.
Hence atoms erst apportioned, now no more
Apportioned prove; while those far readier fit 685
That rouse the sense to hatred and disgust:
For both in all things lurk, as urged above,
E'en in the sweets Hyblæan honey boasts.
  But come, for ODOURS call us, and the powers
That sway th' obsequious nostrils. Odours fine, 690
Wave after wave, flow forth in ceaseless tide
From many a substance, many a living tribe
Attracting different, as diversely reared.
Hence bees, through distant ether, wind the scent
Of honeyed flowrets! vultures, foul of maw, 695
Track the vile carcass; the vivacious hound
Hunts o'er the hills the cloven-footed foe;
And the white goose, preserver of our state,
The haunts explores of mortals. Odours hence
From odours differing, every brutal tribe 700
Its food selects, from baneful poison flies,
And through all time maintains its rank entire.
  Thus varying scents the varying nostrils wound,
To different distance urged; yet none so far
As voice or sounds, not here those films to name 705
That strike the pupil, and solicit sight.
For scents roam tardy, in uncertain path,
And die with ease beneath the breath of heaven,
Since from the depth of things with labour flung.
For that thus deep they rise thou thus may'st prove: 710
That all when frittered, into dust reduced,
Or probed by fire, an ampler essence yield.
Then spring they, too, from particles more gross,
Since void of power the firm flint wall to pierce,
Pierced oft by sounds, by voices. Doubtful hence 715
Feel we full frequent, though in scents immersed,
From what point flows the perfume; for the stream
Chills as it loiters, and with languid force
Excites the dubious nostrils; and hence, too,
Oft the fleet pack wide wanders mid the chase. 720
  Nor tastes alone, nor odours different strike
The different tribes percipient; the light hues,

The semblances of things, diversely, too,
Pungent, or bland, the conscious sight assault.
The lion, thus, the cock's indignant eye 725
Flies, nor can e'er encounter, loud of wing,
Who drives the shadows, and the lazy dawn
Wakes with shrill clarion iterated oft.
For seeds there are that in the warlike cock
Of power peculiar lurk, which when once urged 730
Against the lion's sight, with wound severe
Tear the keen pupil; whence the tortured beast
Dares not the shock; while yet the human eye
Escapes uninjured, since the puny darts
Pierce not, or, piercing, through the yielding pores 735
Find a free entrance, and as free retire.
Now mark while briefly, next, the muse displays
What forms the mind excite, and through the soul
Rush viewless. First be this imprinted deep,
That light, innumerous semblances of things, 740
Towards every point, in modes innumerous press,
Combining soon through ether when they meet,
As the wove woof of spiders, or the threads
Fine-wrought of filmy gold. For slenderer far
Of these the texture than aught e'er that strikes 745
Conspicuous on the pupil, since with ease
Pierce they the porous body, reach, recluse,
Th' attenuate mind, and stimulate the sense.
Hence Centaurs see we, Scyllas, and the face
Of dogs Cerberean, or the spectres pale 750
Of those whose bones the tomb has long embraced.
For countless effigies of countless kinds
Float vagrant round us, self-engendered, now
In air sublime, now flung from all that lives,
And now combined in many a monster form: 755
For the wild semblance of a Centaur yet
Ne'er flowed from Centaurs living, nature such
Creating never; but when once in air
A man's light image with a horse's meets,
Quick they cohere, as just maintained, since reared 760
Of subtlest texture, and the phantom springs.
Thus spring, too, kindred phantoms, by their make
All volatile, and, with percussion joint,

Rousing the mind, soon roused, since reared itself
Of subtlest texture, and vivacious most. 765
Thus all with ease developes. As the mind
Sees but the features sight surveyed before,
Each into act some equal cause must prompt.—
Since the fierce lion, as the muse has taught,
Sight, then, surveys from semblances alone, 770
Nought but mere semblances the mind can rouse;
Hence seen the same, or but attenuate more.
Thus only, when the limbs dissolve in sleep,
The wakeful spirit of the mind descries
Trains of unreal objects, moved throughout 775
By the same images the day displays;
So moved that those oft obvious seem to spring
Whom long the grave has folded in its grasp:
A creed e'en urged by nature, since, profound,
Through the still frame then slumbers every sense, 780
Void of all power to mark the true from false;
Nor rouses the dull memory to clear
The fancied scene, or prove the forms we see
Erewhile fell victims to oblivious fate.—
Nor wondrous deem it that such forms should move, 785
Or wave their hands, as dreams full oft disclose,
Or trip their frolic feet to numerous time.
For the light image stays not, but flows on
In streams successive; hence when this to that
Yields of diverse arrangement, from the change, 790
Rapid as thought, the first seems moving sole.
So vast their powers of action; such the stores
Of things create, the countless phantoms such
Flung through each moment's least capacious point.
Yet many a question themes like these excite, 795
Deep thought demanding ere illumined clear.
Whence springs it that the mind, with instant haste,
Thinks on whate'er the wayward will resolves?
If heaven the heart, if earth, or main, possess,
Pomps, spectacles, or senates, feasts, or fights, 800
Does NATURE then her images create
Prompt to the moment? whence that mortals placed
In the same country, in the self-same spot,
On different themes employ the thoughtful mind?

Whence, too, those graceful attitudes, in turn, 805
The changeful phantoms oft in dreams disclose?
The flexile arm that, through the measured dance,
To arm voluptuous answers? and the foot
To foot symphonious, exquisitely true?
Taste, then, the phantoms science? are they taught 810
Thus loose to wanton mid the night's dead hours?
Or flows it not much rather that each space
Of time minutest, e'en while the fleet lip
Sounds but a syllable, of parts consists
Minuter still, within whose rapid reign 815
Rush they in swarms, towards every point propelled?
So vast their powers of action; such the stores
Of things create. And hence when this to that
Yields of diverse arrangement, from the change
The first alone seems moving to the sight. 820
Then, too, so fine their texture, that the mind,
Save when profound it pries, their separate forms
Can ne'er distinguish; hence, unnoticed, waste
Those the dull mind prepares not to survey.
For thus prepares it ceaseless, and expects 825
The coming vision, hence surveyed alone.
E'en seest thou not the pupil, when it first
Kens some fine object, all its orb contracts,
And strains ere yet the figure full disclose?
Thus, too, in scenes more obvious, if thy soul 830
Thou bend not to the vision, it remains
As though from thee far distant and disjoined.
What wonder each light image, then, should die
Viewless, the mind ne'er rouses to survey.
Then things minute, too, large full oft we deem 835
Wide wandering from the fact, and self-deceived.
And oft a form the present phantom wears
Unlike th' anterior, woman now, and now
The bolder sex, or shaped with different age,
And features fresh, while still oblivion deep, 840
And languid rest restrain us from surprise.
Yet fly abhorrent, here, with vigour fly
Their creed who hold that every organ sprang
To use self-destined: that the pupil rose
Conscious of vision; that the legs, the thighs 845

On the firm foot upreared their columns, versed
Previous in paces; that the flexile arm
Hence nerved with strength its muscles; and the hands
Hung on each side, the messengers of life.
This, and whate'er such sophists else affirm, 850
Is futile all, preposterous, and wild.
For nought so knows its office as to act
When first produced, but all produced alone
Learns it progressive. The nice power to see
Lived not before the eye-ball; to debate 855
With graceful speech before the tongue was formed,
The tongue long first created; nor to hear
Ere rose the sense of sound; nor aught besides
Of organ could anticipate its use.
Hence urged by use, no organ ever sprang. 860
Wars, we admit, with all their ills, began,
And savage blows were dealt, and tides of blood
Flowed forth obscene, ere yet the lucid spear
Was hurled indignant; and to fly its force
Preceded long the left hand's sturdy shield. 865
Thus, too, repose the weary members claimed,
Long ere the down displayed its soft expanse;
And the parched lip was slaked ere goblets rose.
Doubtless such instruments from use foreseen
Were gradual framed, as life and nature called, 870
But nought besides; for all created else
First sprang, and then their proper use explored,
The senses chief, and active limbs of man.—
Hence far the creed reject, then, that affirms
These e'er produced from office pre-conceived. 875
Nor is it wondrous that each form that breathes
Should, from its nature, need diurnal food:
Since, as we erst have taught, in many a mode
Full many an atom flies from all create;
From ranks percipient most, by toil fatigued. 880
For ceaseless vapour here the skin bedews,
Flung forth profound, and quick the labouring lungs
Part with their vital spirit; hence the frame
Sinks all exhausted; faintness preys profuse
O'er every power, and ruin stares around. 885
So foods are claimed the languid limbs to brace,

To fill with strength recruited, and appease
The craving hunger that subdues the soul.
So, too, the goblet spreads its liquid stores
Where'er those stores are sought, with grateful draught
Quenching the fiery stomach, and absorbed 891
Through all the members, freshening as it flows.
Hence dies the raging hunger; and the thirst,
Panting no more, is drowned in fluent bliss.
Now next unfold we, thou the doctrine mark, 895
How the firm foot advances at our will?
Whence draw the lips their motion? and within
What this strange power the body's bulk that drives?—
First, then, we hold—a precept urged before—
That the light images that rove around 900
Beset, and strike the mind; hence springs the will
Determined instant; for no mortal aught
Can e'er commence but what th' interior mind
Wills, and decides; and what the mind thus wills
Th' assailing image governs by its form. 905
So when the mind, thus roused, resolves to walk,
Quick through the total soul, the soul diffused
O'er all the system, the commotion felt
It spreads percussive, spreads with instant ease,
Since close the bond between them; and, in turn. 910
Urged by the soul, the body final moves,
Feels the propulsion, and its power obeys.
Then, too, the frame expands, and the light air
All volatile, through every path, and pore,
Each aperture minutest, ampler flows; 915
And hence from two-fold force, as sails the bark
With wind and canvass, man majestic moves.
Nor strange conceive it that such trivial powers
Should turn the body, and its bulk direct.
For the pure gale, of subtlest atoms reared, 920
With force immense the mightiest ship propels;
While one light hand, one slender helm, with ease
Guides its vast burden o'er the bending main.
And, armed with wheels, and pulleys, the firm crane
Lifts loads at will, the groaning ground that crush. 925
Now by what means soft SLEEP bedews the limbs,
And from the mind drives every carking care,

This next the muse in melodies shall sing
More sweet than prolix; as the swan's lone dirge
Flows forth superior to the clamorous croak 930
Of countless cranes, by every wind disperst.
Hear thou attentive, and with mind acute,
Lest aught appear incongruous, and thy breast
Recoil abhorrent from the truths we teach,
Foe to the creed from ignorance alone. 935
Sleep, then, occurs when fades through every limb
The soul's sensorial power, part by fatigue
Wasted through ether, and concentred part
Deep in each vital organ; till, at length,
Lax grow the members, listless, and dissolved. 940
For power sensorial doubtless from the soul
Derives; and hence, when sleep the senses locks,
Th' enfeebled soul itself to reason seems
Worn out, and all ejected into air.
Yet not entire: for then this mortal make 945
Must sink subdued in death's eternal ice,
No latent atom left, as sparks that lurk
In smothered embers, whence its powers afresh
Might blaze, triumphant, with recovered flame.
Yet by what means this wondrous change results, 950
Whence fails the soul, and all the body droops,
Now mark, nor let the dictates waste in air.
Know then all ether, that around us flows,
Beats on the body, open to its force,
With ceaseless repercussion. Nature hence, 955
To check its fury, oft the tender frame
With skin surrounds, hair, bark, or painted shells.
Nor ceases here th' assault; the breeze inhaled
Winds, too, through all the system, and each duct
Lashes amain with every fleeting breath. 960
Since with a two-fold foe, then, Nature, thus,
Through all her depths, through all her pores minute,
Strives ceaseless, ruin by degrees must threat:
For each primordial seed is deep deranged
Of mind and body: while th' enfeebled soul, 965
By transudation shorn, concentrates part
In the deep vitals, and in part still roams
Through all the limbs distracted, seed from seed

Severed, to join all powerless, or resume
Their wonted action; hence each varying sense, 970
The fount sensorial failing, must itself
Fail too abrupt, the total body droop,
The limbs grow languid, listless hang the hands,
Totter the knees, and the faint eye-lids fall.
Thus food, alike, when through the frame it pours 975
Its stream salubrious, since the toiling air
It mocks in action, slumber too excites.
And heavier far his sleep whom diet full,
Or long fatigue o'erpowers, for ampler, then,
Th' intestine labour, and the soul flies off 980
Ampler external; while the remnant shrinks
Profounder part, and part through every limb
Strays more distracted, of all bond devoid.
Thus slumber issues; and whate'er the thoughts
That chief subdue us, the concerns that claim 985
Our ceaseless care, or what the mind explores
With patient pause, in dreams we still pursue.
The lawyer, thus, o'er briefs and statutes pores;
New wars the soldier wages; with the winds
Strives the vain mariner; while we the laws 990
Of nature scan perpetual, and how best,
When traced, to paint them in our native tongue.
So various lores beside, and arts diverse
Haunt, oft, in sleep the cheated mind of man.
He who from eve to eve, assiduous, long 995
Has marked the public stage, though now no more
It strikes his senses, through his porous frame
Still the light images admits that float
Countless around him. Hence, for many a day,
E'en while awake, the scene before his eyes 1000
Seems still renewed; the light-deckt dancers move
Their modulated limbs, the living lyre
He hears entranced, from every fluent string
Speaking impassioned; he the throng surveys,
And all the pageantry the drama boasts. 1005
Of such vast import are the plans pursued,
The thoughts indulged, the customs deep impressed
Of man not merely, but of brutes as well.
For the nerved steed, as o'er the glebe he lies,
Oft sweats, and pants laborious in his sleep, 1010

As though amain contending for the palm.
So, too, the hound, amid his soft repose,
Oft starts abrupt, and howls, and snuffs the breeze
With ceaseless nostrils, as though full at hand
He tracked the antlered trembler. And, at times, 1015
E'en while awake, with vigour he pursues
Vain semblances of deer as though themselves
Started before him, till the phantoms void
Vanish at length, and truth regain her sway.
E'en the soft lap-dog his inglorious sleep 1020
Breaks not unfrequent, rousing all erect,
Urged by the semblance of some face unknown.
And as of harsher seeds the trains are formed
Of floating phantoms, with augmented force
Strike they the mind. Hence birds, with flight abrupt, 1025
Oft to the centre of the sacred groves
At midnight hurry, in their dreams disturbed
By hideous sight of hawks, on outstretched wing,
Prowling aloft all active for the pounce.
Then what vast toils engage men when asleep! 1030
How pants the mind beneath superb exploits!
Kings strive with kings in combat; or at large
Contend, surrender, pour the cries of death;
While some fight on, though wounded, loading still
All heaven with groans, as though to atoms torn 1035
By some huge lion, or remorseless pard.
Some, too, aloud their machinations tell,
And thus in sleep full oft themselves accuse.
Some on their death-bed seem; and some to leap
Headlong from precipices; by the fright 1040
Awoke, of reason so bereft, the mind
Scarce with the day resumes its wonted reign.
While, oft, the dreamer, all athirst, o'erhangs
Some joyous stream, and drinks the total tide.
So boys asleep, too, deeming near at hand 1045
The public sewer, or close appropriate vase,
Oft lift their skirts the native brine t' eject,
And stain with saffron all the purple bed.

* * * * * * *

As the remaining portion of Good's Translation of this book has already been given at page 182, *it has been deemed unnecessary to reprint it in its place here.*

BOOK V.

WHO, from his burning breast, a strain may strike
Meet for the boundless majesty of things?
Things now developed? who, in words alone,
May pour forth praises worthy his desert
Whose matchless mind such wonders first disclosed? 5
No mortal, doubtless. For, of things explored,
Such the majestic dignity, the sage
Must, so to speak, have been a god indeed:
A god, illustrious MEMMIUS! he who first
The rules of life devised, now termed by all, 10
Sole, solid WISDOM; he whose happy art
From such wild waves, such shades of ten-fold night,
Leads us to truth, tranquillity, and day.
  What are to him the gods of earlier times?
CERES, who taught the fruits of earth to rear, 15
As fame reports? or BACCHUS, first who stole
The vine's purpureal spirit? foods mankind
Without may flourish, and, through many a clime,
This moment know not; but of virtue void,
And purity of heart, man ill can thrive. 20
Hence ampler far his claim to rites divine
Whose dulcet solaces whole nations feel,
Soothing the wounded spirit as they flow.
  Should'st thou with him e'en HERCULES compare,
Famed for exploits, from reason far thou err'st. 25
For what were now to us, with all their threats,
NEMÆA's lion, or th' ARCADIAN boar?
The bull of CRETE, or hydra-headed snake
That reared, o'er LERNA's banks, his dreadful fangs?
Or what to us the triple-breasted strength 30
Of three-faced GERYON, or the horses wild
Of DIOMED, o'er ISMARA, and THRACE,
And all BISTONIA, snorting ceaseless fire?
What woes could these now menace? or the birds
With huge, uncleanly talons that defiled 35
The climes of ARCADY? or, feller still,
Th' enormous dragon that, with eye severe,
Clung round the tree of vegetable gold,

And in HESPERIA kept the glittering fruit?
How now could such affect us? fixt remote 40
O'er boundless seas, beyond th' ATLANTIC shores,
Where never mortal else, refined or rude,
Dared urge his desperate sail? E'en though alive,
Unconquered still, from monsters such as these
What need we dread? Nought, doubtless, or I err. 45
For savage monsters crowd the world e'en now,
Fearful and gaunt; and hills, and groves remote,
And pathless woods re-echo to their roar;
Scenes, still, our feet with ease may ever shun.
But, with the mind unpurged, what tumults dire, 50
What dangers inly rage! what hosts of cares,
From various lusts, convulse the total man!
What terrors throng! what dread destruction flows
From pomp, pride, passion, indolence, and vice!
He, then, that these o'erpowers, and from the breast 55
Drives, not by arms, but precepts sage and pure—
Say—ought not this man with the gods to rank?
Since of themselves, too, and in strain divine,
Much to the race of mortals he disclosed,
And oped the nature of created things. 60
  His steps I follow; and, by him illumed,
Unlock the laws whence first the world uprose;
Laws that still guide it, and to utmost time
Will guide resistless; whence the human soul
Was stampt corporeal, impotent to live 65
Age after age triumphant o'er decay,
Proving that nought but phantoms cheat the mind,
When oft in sleep we deem the dead appear.
  What then, in order, waits us but to sing
How Nature's perishable system sprang, 70
As sure of fate as erst of natal hour;
How, from the mass material, heaven and earth,
Sun, moon, and stars, harmonious swelled to life;
What animated tribes, from age to age,
Have peopled space, and what have never lived: 75
Whence man, in various tongues, the power possessed
Of naming all surveyed; whence the deep fear,
Felt through the soul, of potentates divine,
Urging the nations to the culture dread

Of lakes, groves, altars, images, and fanes. 80
Ours, too, the task to show how Nature bends,
With power presiding, the reluctant sun
And moon through all their courses; lest thou deem
These of themselves, 'twixt heaven and earth, fulfil
Their ceaseless rounds; renewing, as they roll, 85
Fruits, and the sentient tribes; or hold the gods
Guide the vast frame, unwearied, and unseen.
For he who justly deems th' immortals live
Safe, and at ease, yet fluctuates in his mind
How things are swayed, how chiefly those discerned 90
In heaven sublime,—to superstition back
Lapses, and rears a tyrant host, and, then,
Conceives, dull reasoner! they can all things do;
While yet himself nor knows what may be done
Nor what may never; nature powers defined 95
Stamping on all, and bounds that none can pass.
First, to delay no more then, we maintain
That earth, air, ocean, these stupendous scenes,
These triple bodies so diversely reared,
These, MEMMIUS! these one common day shall doom 100
To utter ruin; when, for ages propt,
The world's vast system shall itself dissolve.
Nor hid from me how new the creed we teach,
How wondrous to the mind, that heaven and earth
Should perish ever; or how hard the task 105
By words alone such tenets to confirm.
For thus thou e'er wilt find it when thy tongue
Opes some fresh subject sight has ne'er surveyed,
Nor touch developed, the main roads belief
Treads to the breast, and temple of the mind. 110
Yet will I strive; facts, haply, shall themselves
Aid me, and thou the world's vast fabric own
By dread convulsions shortly must be shook.
May fortune's smile this hour from us avert!
And truth, not feeling, the tremendous roar 115
Teach, with which all to ruin then shall rush!
Yet on this theme before the muse unlock
Her mystic treasures, sager and more true
Than e'er the PYTHIAN maid, with laurels crowned,
Spoke from the tripod at APOLLO'S shrine,— 120

Some salutary precepts would I add,
Lest, chained by superstition, thou should'st deem
Heaven, earth, and ocean, sun, moon, stars exist
Gods in their frame, and of eternal date,
And fear for those the vengeance that pursued 125
The race gigantic, who, with lettered lore,
Shake the world's walls, the radiant eye of heaven
Quench, and th' immortals sketch in mortal terms.
For these, so far from arrogating, proud,
Celestial honours, and the rank of gods, 130
Full proof exhibit, rather, how devoid
Of vital action matter may exist,
And that not every compound frame alike
Boasts the high powers of intellect and mind.
Trees not in ether, not in ocean clouds, 135
Nor in the fields can fishes e'er exist;
Nor blood in planks, nor vital juice in stones;
But all springs definite in scenes defined.
So in the bosom lives, and there alone,
Mixt with its blood and nerves, the secret mind. 140
There only lives; for, could it roam at all,
Then rather should we through the body's self,
The heel or shoulder, or where else it chose,
Oft trace it wandering than forlorn abroad.
Since, e'en in body then, the soul and mind 145
Are fixt thus definite, we amply prove
That out of body, and a reasoning frame,
In putrid glebes of earth, or solar fire,
In air, or water, sense can never dwell.
And hence these ne'er divinity can boast, 150
Since e'en devoid of animated life.
Nor deem the sacred mansion of the gods
O'er aught extend of this material frame:
For their immortal nature, far removed
From human sense, from matter gross and dull 155
Scarce by the mind's pure spirit can be traced.
Hence, as no touch of matter these can reach,
Their finer textures never can impress
Material objects, for whate'er exists
Intangible, itself can never touch. 160
And, thus, th' immortal regions must from ours

Wide vary, congruous to their purer frames:
As soon the muse in ampler verse shall prove.
T' assert moreo'er the gods for mortal man
Reared this vast fabric, and that duty, hence, 165
Bids us extol the workmanship divine,
Deem it immortal, and of deathless date,
And that most impious is it to arraign
Aught thus constructed by the gods themselves
From earliest time, for man's perpetual use; 170
Most impious, though in words alone, to shake
The world's firm basis,—such conceits to feign,
To talk thus idly, MEMMIUS, is to rave.
For what vast gain can e'er th' immortal powers,
Blest in themselves, from human praise derive 175
To rouse them in our favour? what new hope,
Such ages after of unsullied peace,
Could tempt them once to linger for a change?
New scenes to welcome, joyless proves the past;
But where no ill can rise, where every hour, 180
Age after age, propitious still must glide,
How can the breast here burn for what is new?
Dragged they their lives in darkness, then, and woe
Till sprang th' illumined world? or, if ne'er born,
What cause could man have marshalled for complaint? 185
Born, it behoves him, doubtless, to remain
In life while life one blessing can afford;
But what of vital joy ne'er tasted, ne'er
Ranked with the living, how can such object,
And with what reason, that it ne'er was formed? 190
Whence could the gods the model, too, deduce
Of things create, the portraiture of man?
Or in their minds how first the notion spring?
Whence, too, the powers of atoms could they learn,
Changing their act as in position changed, 195
If nature ne'er the visual world had reared?
Atoms, innumerous, that in countless modes,
From time eternal have been so convulsed
By repercussions, by intrinsic weight
So urged and altered, and, in every form 200
Combined, evincing still some action new,
In every mass some effort to create,

That nought stupendous seems it they, at length,
Should gain those stations, those connexions gain,
Whence sprang th' Entire of all things, and subsists. 205
E'en though the rise of things I ne'er could prove,
Yet dare I, from the heaven's defective frame,
And many a scene alike perverse, affirm
No power divine this mass material reared
With ills so gross, so palpable to sight. 210
First, all beneath th' ethereal cope's wide whirl
What hills rapacious rise! what woods beset
With tribes ferocious! what uncultured rocks!
How stretch the stagnant lakes, of life devoid,
And the vast main that severs shore from shore! 215
Then torrid heat, too, and perpetual frost
Shut from mankind near half the solid earth:
While what of glebe remains, from power innate
So throngs with briers, human art can scarce
The growth restrain; by love of life led on 220
O'er the tough spade, or delving plough to groan:
For if the share we thrust not through the soil,
Subjecting earth, and rearing for ourselves
The stores demanded, birth were never theirs.
Yet e'en, at times, when, sought by long fatigue, 225
With flowers and foliage laughs the total scene,
Th' ethereal sun with rage untempered burns,
Or showers abrupt destroy, or biting frosts,
Or the wild winds with winnow too severe.
And why, moreo'er, in ocean, or on earth, 230
Does nature nourish, and the tribes augment
Of savage brutes and monsters? why renew
Diseases with the seasons? and with deaths
Green and untimely thin the race of man?
Then the poor babe, too, like a sea-man wrecked 235
Thrown from the waves, lies naked o'er the ground,
Weakly and void of every vital aid,
When nature first, amid his mother's pangs,
Casts the young burden on the realms of light;
And leaves to pine full sore, as well he may, 240
That e'er the suffering lot of life were his.
While herds, meantime, and beasts of various name,
Flourish at ease; no rattles they require,

No broken lullaby of dandling nurse,
Nor varying dress adapted to the day: 245
Nor arms they need, nor garners to protect
Their hoarded treasures, earth and nature boon
To each acceding every latent wish.
And since earth, ocean, heat's redundant stream,
And the light spirits of the gentle airs, 250
Whence chief the world is reared, of frames consist
Create and mortal, mortal and create
Must, too, the total world itself be deemed.
For where we see the separate parts of things
Of figures formed, now rising, now destroyed, 255
There see we, too, the mass those parts compose
Must have alike an origin and end.
So, where we view the world's chief members rise,
And waste alternate, heaven and earth we hold
Erst was created and must soon decay. 260
Nor here, O MEMMIUS! unconfirmed by proof
Deem we maintain that earth, or ether pure,
Moisture or heat, are perishable all;
Reviving still, and urged to growth mature.
For much of earth perpetual suns to dust 265
Burn most impalpable; and much the tread
Of ceaseless traffic into clouds compels,
Blown by the winds o'er all the void of heaven.
While part, if glebe, the rushing rains dissolve,
Or restless tides, if formed of bank abrupt. 270
Whate'er, moreo'er, some other substance feeds
Itself must waste proportioned; whence, since earth
The common parent lives, and grave of all,
She, too, alike must dwindle and augment.
Then that the fountains, floods, and boundless main 275
Swell with new waters from perpetual springs,
Words need not prove; the lavish streams that flow
Still undiminished, turn where'er we may,
This, of themselves, demonstrate; while above
Mounts all excess attenuate as it forms. 280
For part the bickering winds brush ceaseless, part
The sun exhales ethereal, and through earth
Part still retreats, and, percolated pure,
Fresh bubbles distant at some fountain-head:

Whence winds again the dulcet tide through paths 285
Its liquid feet have printed oft before.
  To air now turn we, varying every hour
In every mode: for all that pours profuse
From things perpetual, the vast ocean joins
Of air sublime; which if to things again 290
Paid not, thus balancing the loss sustained,
All into air would dissipate and die.
Hence, born from things, to things air still returns
Ceaseless, as prove their fluctuating forms.
  Then, too, th' ethereal sun, exhaustless fount 295
Of liquid light, all heaven with flame bedews,
And pours o'er lustre lustre ever new.
For, fall where'er it may, th' impinging beam
Dies in the contest instant. This full clear
See we, whene'er by interposing clouds, 300
The solar disc is blotted, and its rays
Fractured abrupt; for the bright stream below
Then fades, and all the sickening scene is shade.
Hence may'st thou learn that things for ever claim
New radiance, and that every wave propelled 305
Wastes instantaneous—while alone survives
Perpetual shine from rays perpetual poured.
  So from our earthly lights, too, trimmed at eve,
The pendant lamp, the taper, or the torch
Flaring bituminous through clouds of smoke, 310
Stream new-born lustres from their several fires
With brandish ceaseless, ceaseless or the scene
Would instant frown with discontinuous blaze.
So rapid rush they! such the headlong speed
With which the present triumphs o'er the past. 315
So sun, moon, stars alike are deemed t' eject,
Birth after birth, still fresh-engendered rays,
Glittering through time with light that never lives.
  E'en seest thou not how stones themselves decay?
How turrets totter, and the rigid rock 320
Crumbles in time to dust? how yield, at length,
Fanes, altars, images by age worn out?
Nor can the gods resist th' impending fate,
Or war with nature. Moulder not, moreo'er,
The marble tombs of heroes? as though each 325

Sought, like the form it clasps, an early end.
And rush not oft huge crags, from mountain heights
Hurled headlong, powerless to resist the rage
Of finite time? for had they flourished firm
From time eternal, they had flourished still. 330
View this vast concave that above, around,
Folds all creation in its mighty grasp;
This whence, as some tell, all first rose, and where
All shall at last return—this too exists
Create and mortal; for whate'er augments 335
Aught else, and nurtures, must itself decrease,
Repaired alone by matters re-absorbed.
Yet grant this heaven, this earth the heaven surrounds,
Time ne'er produced, eternal of themselves—
Whence ere the THEBAN war, and fate of TROY, 340
Have earlier bards no earlier actions sung?
Whence fell each chief unhonoured? and his deeds
Shut from the tablet of immortal fame?
But, or I err, the world's vast scope exists
New from its nature, and of recent birth: 345
For many a liberal art now first unfolds,
And much is still progressive; genius much,
E'en at this hour, to navigation adds;
Nor minstrels long have struck the dulcet lyre:
While the vast science of the RISE OF THINGS 350
Throughout is novel; and, among the first,
I first am numbered who the lore devised,
And taught its dictates in our native tongue.
Yet should'st thou deem that all things erst ensued
As now, but that the race of men unknown, 355
With all their records, conflagrations dire
Swept from the world, or earthquakes deep ingulfed,
Or floods, rapacious from perpetual rains,
Drowned, and their towns and citadels dissolved:
Then flows it doubly thou must own, convinced, 360
That heaven and earth hereafter may decay.
For since such woes, such dangers can assail
Created things, when once the cause augments
Perdition boundless must perforce ensue.
Nor by aught else can we ourselves decide 365
Mortal, but that with maladies we droop

Like those whom NATURE ceaseless calls from life.
  What lives immortal, too, must so exist
Or from its own solidity, empowered
Each blow to conquer, undivided still 370
As primal atoms, long anterior sung;
Or since, like vacuum, of all friction void,
Free from all touch, by impulse unimpaired;
Or from the want of circling space in which
The severing atoms may dissolve and fall: 375
Such want the boundless whole of nature proves,
And hence eternal, for no place beyond
Spreads where its seeds could waste; nor from without
Can foreign force e'er enter to destroy.
But nor, as urged above, exists the world 380
All solid, since in all things void combines,
Nor yet all vacuum; nor, from the profound,
Are wanting powers adverse that, into act
Once roused tempestuous, may the world derange,
Or sever total; nor deficient space 385
Spread widely round, through which, in countless modes,
The frame mundane may crumble and dissolve;
Hence not precluded from the gates of death
Is heaven, or earth, or sun, or main immense,
Gates in full view, unfolded wide to each. 390
  Hence too, since mortal, each alike exists
Of frame created; for no mortal make
Could, from eternal time, the rage have borne
Of countless ages urgent to devour.
  And since, moreo'er, the world's vast members strive 395
In ruthless war, contending each with each,
Seest thou not clear some final shock must soon
Decide the contest? that the fiery sun
Perchance may conquer, and each flood drink up
Till nought survive; as oft disposed he seems; 400
Yet idly. For so vast the stores supplied
From springs perpetual, such the boundless main,
A daily deluge threats us; yet alike
Threats us in vain; for much the winnowing winds
Skim from the surface, and th' ethereal sun 405
Such draughts exhales insatiate, that the world
With drought than deluge rather must expire:

So strive they equal, so with powers alike
Pant for the lists. And hence, as fame reports,
Flame triumphed once, and once the boisterous waves 410
Leaped o'er their boundaries, and the world ingulfed.
Flame triumphed, and the total orb was fire
When the wild fury of the solar steeds
Whirled through the heavens, and o'er th' astounded earth
Ill-fated PHAETON, whom, deep-incensed, 415
Almighty JOVE hurled headlong from the skies,
While PHŒBUS caught th' eternal lamp, restrained
Abrupt the trembling coursers, reined afresh,
And into peace re-organized the world.
So feign the bards of GREECE, devoid alike 420
Of truth and reason. Yet the power of fire
Doubtless might triumph, should the fiery seeds
Collect too largely from th' abyss of things:
When or some fiercer force their rage must quell,
Or the red siroc burn the world to dust. 425
Thus, too, th' insurgent waters once o'erpowered,
As fables tell, and deluged many a state;
Till, in its turn, the congregated waves
By cause more potent conquered, heaven restrained
Its ceaseless torrents, and the floods decreased. 430
But from this boundless mass of matter first
How heaven, and earth, and ocean, sun, and moon,
Rose in nice order, now the muse shall tell.
For never, doubtless, from result of thought,
Or mutual compact, could primordial seeds 435
First harmonize, or move with powers precise.
But countless crowds in countless manners urged,
From time eternal, by intrinsic weight,
And ceaseless repercussion, to combine
In all the possibilities of forms, 440
Of actions, and connexions, and exert
In every change some effort to create—
Reared the rude frame at length, abruptly reared,
Which, when once gendered, must the basis prove
Of things sublime; and whence eventual rose 445
Heaven, earth, and ocean, and the tribes of sense.
Yet now nor sun on fiery wheel was seen
Riding sublime, nor stars adorned the pole,

Nor heaven, nor earth, nor air, nor ocean lived,
Nor aught of prospect mortal sight surveys; 450
But one vast chaos boisterous, and confused.
Yet order hence began; the mingled mass
Unveiled its various powers; congenial parts
Parts joined congenial; and the rising world
Gradual evolved: its mighty members each 455
From each divided, and matured complete
From seeds appropriate; whose wild discord erst,
Reared by their strange diversities of form,
With ruthless war so broke their proper paths,
Their motions, intervals, conjunctions, weights, 460
And repercussions, nought of genial act
Till now could follow, nor the seeds themselves,
E'en though conjoined, in mutual bond cohere.
Thus air, secreted, rose o'er labouring earth;
Secreted, ocean flowed; and the pure fire, 465
Secreted too, towards ether sprang sublime.
But first the seeds terrene, since ponderous most,
And most perplext, in close embraces clung,
And towards the centre conglobating sunk.
And, as the bond grew firmer, ampler forth 470
Pressed they the fluent essences that reared
Sun, moon, and stars, and main, and heaven's high walls.
For these of atoms lighter far consist,
Subtler, and more rotund than those of earth.
Whence, from the pores terrene, with foremost haste 475
Rushed the bright ether, towering high, and swift
Streams of pure fire attracting as it flowed.
Not differing wide from what full oft we view
When, at the dawn, the golden-tressed sun
Flames o'er the meadows rich with rory gems, 480
And from the mountains, lakes, and teeming glebes,
Draws many a vapour; which, when once aloft
By the chill air condensed, to clouds concretes,
And with its filmy drapery veils the heavens.
So the light ether, as from every point 485
Fluent it rose, concreted, and a bound
Gradual assumed, and, thus assuming, grasped
In its vast compass all th' evolving world.
Then mounted, next, the base of sun, and moon,

'Twixt earth and ether, in the midway air, 490
Rolling their orbs; for into neither these
Could blend harmonious, since too light with earth
To sink deprest, while yet too ponderous far
To fly with ether towards the realms extreme:
So 'twixt the two they hovered; vital there 495
Moving for ever, parts of the vast whole;
As move for ever in the frame of man
Some active organs, while some oft repose.
These from the mass discharged, much next of earth
Subsided sudden, and the gulf disclosed 500
Where ocean rolls his blue and briny tide.
And as th' ethereal gas, and solar blaze
Flowed more profuse, and lashed, with ceaseless rage,
The porous surface, firmer thus condensed
Towards its own centre, the corrosive lymph 505
Ampler transuded; and with livelier streams
Filled the wide hollow of the liquid plains:
And ampler, too, th' attenuate textures rushed
Of air, and fire, and, borne on swifter wing,
High reared the radiant temples of the sky. 510
Low sunk the vales, the mountains still sublime
Stood, for no power their rocky base could shake,
Nor equal settled e'en the softer soils.
So all was formed: the ponderous bulk of earth
Concentred close, and to the lowliest base 515
Fell, the foul fæces of th' unfolding world:
While ocean, air, and ether filled with fire,
Sprang from the remnant atoms more refined.
Yet these, too, differed; for, though liquid all,
And light, yet ether far the rest surpassed, 520
Most light, most liquid, and in heaven sublime
Hence loftiest towered it, never mingling once
With the rude tumults of the lowlier air:
For whirlwinds this, and wayward tempests, oft
Shatter abrupt, while ether glides through time 525
In one smooth course, and bears its fires along;
As flows th' undevious Euxine, and preserves
One ceaseless tenor, limpid and serene.
How move the stars, now next the muse shall sing.
And first, if heaven's vast orb we deem revolve 530

Round the fixt earth, some subtle gas, perchance,
Bounds it on all sides, and with two-fold stream,
Whirls round its poles; the current urged above
Steering the course the gliding planets point,
Themselves hence soon propelled; while that below 535
Flows adverse, and the nether sphere drives on,
As drives the tide the mill's unwearied wheel.
Yet, if unmoved the heavenly orb we deem,
Its fires may still revolve: some restless seeds
Of all-elastic ether, close pent up, 540
Panting for ease, may agitate their balls,
And round the sky's refulgent concave whirl.
Or air absorbed extrinsic may, alike,
With restless rage compel them; or themselves
Each choose his various path as food invites, 545
Their lucid lamps recruiting through the heavens.
But of these causes which in this world rules
'Tis hard t' affirm; whence rather here we teach
What through th' ENTIRE OF NATURE may subsist
Mid various worlds to various models framed, 550
And strive t' unfold whate'er may haply bend,
In different systems, different stars, than aught
Assign precise for either. One alone
Of those now numbered, one sole cause propels
The stars of earth, but which that cause the sage 555
Yet dares not name, who treads with cautious foot.
But, that this mass terrene might hold unmoved
The world's mid regions, its excess of weight,
From its own centre downwards, gradual ceased;
And all below a different power assumed 560
From earliest birth, a nature more attuned
To the pure air on which it safe reposed.
Hence earth to air no burden proves, nor deep
Grinds it with pressure; as the limbs no load
Feel to the body, to the neck no weight 565
Th' incumbent head, nor e'en the total form
Minutest labour to the feet below:
While yet each foreign substance, though but light,
Grieves oft severely instant as imposed;
So vast th' importance things their like should join. 570
For from a distance earth was never brought,

And into air at once abruptly hurled;
But both sprang equal when the world first rose,
Each part of each as limb with limb combines.
When, too, with thunder shake the realms above 575
Earth feels the dread concussion, and rebounds;
Effect which ne'er could flow did nought of tie
Bind it to ether, and the world of air:
For each to each, as with commingled roots,
Cleave from their birth, congenial, and conjoined. 580
Seest thou not, ceaseless, how th' attenuate soul
Bears up the ponderous body, since alike
Conjoined, congenial; when the total frame
Leaps up abrupt, whence flows the salient force
But from the soul the members that commands? 585
Seest thou not hence, then, what the subtlest power
May compass when with ponderous frames conjunct,
As earth with air, or with the body mind?
Nor less, nor larger much the solar wheel
Measures than meets the view: far be the space 590
Of utmost length through which aught igneous throws
Its liquid heat, its lustre o'er the limbs,
While these yet reach us it can ne'er so far
Lie that the distance should curtail its size.
Since, then, the sun flings down his fires, profuse, 595
His light on all things, he must still exist
Nor less, nor larger than the vision views.
Thus too the moon, shine she with borrowed blaze,
Or pour essential splendour from herself,
Moves with the magnitude the sight surveys. 600
For all discerned through tracts of air remote
Grows first confused and indistinct of form
Ere yet its size diminish; but the moon,
Since traced precise through e'en her utmost orb,
Must prove the sphere the sight descries sublime. 605
Th' ethereal stars, moreo'er—since lights terrene
Receding gradual, while they yet maintain
Their lambent fires, their radiance unimpaired,
Scarce obvious dwindle,—must themselves alike
In size scarce vary from the form they show. 610
Nor deem it strange that so minute a sun
Should pour forth flame sufficient heaven to fill,

And earth, and ocean, and whate'er exists
Tinge with its glittering dew; for, from abroad
The myriad seeds of fire dispersed at large 615
Through all things, here as to their fountain flow,
And hence well forth o'er all th' exulting world
In boundless flood: seest thou how small a spring
Feeds with its liquid treasures meads, full oft,
Of amplest breadth, and all their glebe o'erflows? 620
  Or the small globe of solar flame, perchance,
Th' effusive air may fire, than aught besides
Ignited easier by th' impinging ray;
As oft some casual spark the field inflames
Of full-ripe corn, or stubble crisp and sear. 625
  Or haply stores, impalpable to sight,
Of latent heat the rosy lamp surround,
Whence amply draws it its eternal blaze.
  Nor trace we clear by what unvarying law,
When summer fades, the sun his downward path 630
Bends towards the wintry goat, and thence, in turn,
Reclimbs the heavens, and, from the red crab, pours
The sultry solstice; or, why seems the moon
O'er the same space to voyage every month
The toiling sun claims twelve t' achieve complete. 635
These nought unfolds decisive; for the dogm
Of sage DEMOCRITUS we, first, may deem
Haply efficient, that the radiant signs,
As nearer earth affixed, less rapid far
Roll in the heaven's vast whirlpool, heaven below 640
Gradual its race relaxing; whence the sun
And solar satellites must more and more
Be backwards left, deserted, since full deep
Lie they beneath the blue ethereal fires:
While the bright moon lies deeper still, and hence 645
Still powerless more, as nearer earth's low bounds,
To match the speed the loftier signs display.
As tardier moves she in her proner path
Than moves the sun, as swifter o'er her rolls
The wondrous vortex of sublimest heaven. 650
Whence seems she speedier through each sign t' advance,
While o'er herself each sign but fleeter flies.
  Or different airs, perchance, at times defined,

Rush o'er the converse hemispheres of earth;
This the moon driving from the summer fires 655
Down towards the wintry arc, and realms of ice;
And that, alternate, raising her again
From frost's drear solstice to the sultry signs.
Thus moves the sun too, haply, and the stars
Alternate thus, by converse airs propelled, 660
Roll their vast rounds, and fill the mighty year.
Seest thou not oft, from different winds, the clouds
Above borne different from the clouds below?
Why then, alike, may different streams of air
Bend not the stars, the planets through their paths? 665
Then night, at length, the world with darkness shrouds,
Or since the sun, at heaven's remotest verge,
Tired with his toil, his remnant lamp blows out,
Curtailed already by the race achieved
Through long concussive air; or the same power 670
Still drives his restless axle earth beneath,
That, through the day, propelled his orb sublime.
Then the young MORNING, too, at hour precise
Leads through th' ethereal realms the rosy dawn,
New light diffusing; either since the sun, 675
Th' inferior earth encompassed, now once more
Tries his fresh strength, and with projected rays
Anticipates his orb; or that the seeds
Of embryo-fires, in full divan convened
At punctual periods in the purple east, 680
Gradual condense, and rear the solar blaze.
For thus, we learn, from IDA'S top surveyed,
Seem they, the flames diffused conglobing firm
Till springs, at length, the radiant orb complete.
Nor strange conceive it that the seeds of fire 685
Should thus assemble, and, at hour precise,
Renew the solar splendour: facts like these
All nature wide displays; at hour precise
Blossoms the shrub, at hour precise its bloom
Loses deciduous; fixt, determined time 690
Throws from the boy his infant teeth, arrays
In downy puberty, and, o'er his cheeks,
Flings the first feathers of th' unripened beard.
Clouds, thunders, tempests, rains, and gelid snows,

At punctual seasons all alike recur. 695
For as the train of causes first uprose,
And the young world its earliest features found,
Things follow things in order most exact.
  And day elongates, and the night contracts,
And night augments, and day curtails its course, 700
Since the same sun, earth under and above
Revolving, ether with unequal curve
Cleaves, and to parts of magnitude unlike
Severs the globe; alternate this o'er that
Prevailing gradual till the nodes he reach 705
Where night and day assimilate their reigns.
For, in the central realms 'twixt north and south,
His utmost wanderings, midway, heaven divides:
So traverse winds the star-enamelled path
Through which his mazy steps the seasons lead, 710
With ray oblique illuming earth and sky.
For thus they hold the heavenly orb who mark
Throughout arranged with constellations fair.
Or, earth beneath, the atmosphere, perchance,
Hangs, in fixt places, heavier; whence the seeds 715
Of congregating fires, with toil immense,
Wade through, and later weave the trembling dawn:
And whence, through winter, long the tedious night
Drawls, ere the day-star rears his radiant front.
Or, haply, the young fires that frame the sun 720
More swift or tardy towards the purple east
Alternate rush, as round the seasons roll.
  The moon may shine by solar lustres struck,
Her argent front augmenting every day
As from the sun she wanders, till, at length. 725
Now full opposed, her total disc is light,
And, rising east, she marks his westward fall:
Then step by step retracting, earth beneath,
Her full-blown lamp, as towards the sun she curves,
Through all the remnant of the radiant signs; 730
As deems the sage who holds her form globose,
And that below the solar orb her path
Punctual she winds; and sound the doctrine seems.
  Yet may the moon with lustre all her own
Shine, every phase unfolding, if, in front, 735

Some other orb attend her, through her course
Gliding complete, in every mode convolved,
While viewless still to sight since reared opaque.
Or she may still, if spherical of form,
Each change disclose, though luminous but half: 740
For, as she self-revolves, her gradual lamp
Must grow till all her bright side beams complete;
Then, rolling still, as gradual must she close
Her lucid eye, till all opposed is shade;
As teach CHALDEAN magi, striving strong 745
The schools of GREECE t' o'erpower, as though the creeds
Waged endless war, or this than that adduced
Proofs more conclusive to th' unbiassed mind.
Why too may not each rising moon be new?
Its time, form, place, by nicest order swayed, 750
And, springing daily, daily too decay,
Still reproduced for ever? this to solve
Both words and reasoning arduous find alike,
Since things throughout in order flow precise.
SPRING comes, and VENUS, and, with foot advanced, 755
The light-winged ZEPHYR, harbinger beloved,
Maternal FLORA strewing, ere she treads,
O'er every footstep blooms of choicest hue,
And the glad ETHER loading with perfumes.
Then HEAT succeeds, the parched ETESIAN breeze, 760
And dust-discoloured CERES; AUTUMN, then,
Follows, and tipsy BACCHUS arm in arm,
And STORMS and TEMPESTS; EURUS roars amain;
And the red SOUTH brews thunders: till, at length,
COLD shuts the scene, and WINTER's train prevails, 765
SNOWS, hoary SLEET, and FROST with chattering teeth.
Whence scarce stupendous seems it that the moon
Should punctual rise, and, rising, punctual die,
Since things at large, so punctual, things succeed.
Thus, too, to various causes may'st thou charge 770
The sun's eclipse, or shade of lunar light.
For why should rather, 'twixt the sun and earth,
The moon rush rampant, and with shadowy orb,
Shut from mankind the radiant fount of day,
Than aught besides that haply may subsist 775
Rolling sublime, but ever void of light?

Why may not, too, in time and place prescribed,
The sun himself grow languid, his bright beam
Powerless to pour, till now the spot he pass
That thus obstructs his glory and renews? 780
And why, moreo'er, should earth alone arrest
Light from the labouring moon, and, riding high,
Blindfold the solar disc, the lunar sphere,
Still loftier, gliding through her shadowy cone,
While nought of body else, 'twixt moon and sun 785
Rushing, can quench the ray profusely dealt?
So, if the moon herself be lustrous, why
May ne'er that lustre languish till the bound
Joyous she pass that poisons all her lamp?
Thus having traced the causes obvious most 790
That sway the sapphire heavens; whence the bright sun,
The moon fulfil their courses, and the shade
How reared that oft their radiant front enwraps,
Hiding abrupt, as though their eyes now winked,
And now re-opened, o'er the face of things 795
Shedding afresh clear floods of lucid white;
Once more return we to the world's pure prime,
Her fields yet liquid, and the tribes survey
First she put forth, and trusted to the winds.
And first the race she reared of verdant herbs, 800
Glistening o'er every hill; the fields at large
Shone with the verdant tincture, and the trees
Felt the deep impulse, and with outstretched arms
Broke from their bonds rejoicing. As the down
Shoots from the winged nations, or from beasts 805
Bristles or hair, so poured the new-born earth
Plants, fruits, and herbage. Then, in order next,
Raised she the sentient tribes, in various modes,
By various powers distinguished: for nor heaven
Down dropped them, nor from ocean's briny waves 810
Sprang they, terrestrial sole; whence, justly, EARTH
Claims the dear name of mother, since alone
Flowed from herself whate'er the sight surveys.
E'en now oft rears she many a sentient tribe,
By showers and sun-shine ushered into day. 815
Whence less stupendous tribes should then have risen
More, and of ampler make, herself new-formed,

In flower of youth, and ETHER all mature.
  Of these birds first, of wing and plume diverse,
Broke their light shells in spring-time: as in spring 820
Still breaks the grasshopper his curious web,
And seeks, spontaneous, foods and vital air.
  Then rushed the ranks of mortals; for the soil,
Exuberant then, with warmth and moisture teemed.
So, o'er each scene appropriate, myriad wombs 825
Shot, and expanded, to the genial sward
By fibres fixt; and as, in ripened hour,
Their liquid orbs the daring fetus broke
Of breath impatient, nature here transformed
Th' assenting earth, and taught her opening veins 830
With juice to flow lacteal; as the fair
Now with sweet milk o'erflows, whose raptured breast
First hails the stranger-babe, since all absorbed
Of nurture, to the genial tide converts.
Earth fed the nursling, the warm ether clothed, 835
And the soft downy grass his couch composed.
  For the fresh world, as yet, no chills severe,
No parching heats, nor boisterous whirlwinds knew;
These, like all else, by time alone matured.
  Hence the dear name of mother, o'er and o'er, 840
Earth claims most justly, since the race of man
Long bore she of herself, each brutal tribe
Wild-wandering o'er the mountains, and the birds
Gay-winged, that cleave, diverse, the liquid air.
Yet drew, at length, the moment when herself 845
Could bear no longer; like her daughters since,
By age divested of parturient power.
For age the total world transforms, from state
To state for ever passing; nought remains
Long its own like; all migrates sight surveys, 850
Varying each hour, from change to change propelled.
This grows and ripens, and with age corrupts;
That, from its ruins, springs, and perfects life.
So time transmutes the total world's vast frame,
From state to state urged on, now void of powers 855
Erst known, and boasting those unknown before.
  Hence, doubtless, earth prodigious forms at first
Gendered, of face and members most grotesque;

Monsters half-man, half-woman, not from each
Distant, yet neither total; shapes unsound, 860
Footless, and handless, void of mouth or eye,
Or from misjunction, maimed, of limb with limb:
To act all impotent, or flee from harm,
Or nurture take their loathsome days t' extend.
These sprang at first, and things alike uncouth; 865
Yet vainly; for abhorrent NATURE quick
Checked their vile growth; so life's consummate flower
Ne'er reached they, foods appropriate never cropped,
Nor tasted joys venereal. For with cause
Cause ceaseless must combine, or nought can rise 870
Of race generic; genial foods must spring
And genial organs, from the total frame
The vital seeds concocted to collect;
And male must blend with female, and the bliss
Educed prove mutual, ere effect can flow. 875
Hence, doubtless, many a tribe has sunk suppresst,
Powerless its kind to gender. For whate'er
Feeds on the living ether, craft or speed,
Or courage stern, from age to age preserves
In ranks uninjured: while full many a class 880
Man guards himself, incited by their use.
In strength ferocious thus the lion trusts,
In guile the fox, the stag in peerless flight;
While the light-slumbering dog, of heart sincere,
The bounding courser, herds, and fleecy flocks, 885
These, MEMMIUS, these protection claim from man.
For these the baser broods fly anxious, fond
Of quiet soft, and meals themselves ne'er bought;
Boons we bestow from certainty of gain.
But those such powers that boast not, void of means 890
Formed, for defence, nor tribute to mankind
Repaying ever—why should human aid
To such be lent, redeeming them from death?
These, from their native bondage, must perforce
Fall to the feller sports, and victims rude, 895
Till the whole order cease, from earth extinct.
Yet CENTAURS lived not; nor could shapes like these
Live ever, from two different natures reared,
Discordant limbs, and powers by powers reversed.

E'en this the dullest thus with ease may learn. 900
The steed, o'er whom the year has thrice revolved,
Grows firm and vigorous; but the babe a babe
Still proves, and haply still explores, asleep,
The dulcet breast whose stores were late his own.
When, too, the steed's strong fibres faint with age, 905
And every member feels the coming fate,
Youth o'er the boy his fairest flower expands,
And the soft down sprouts earliest from his chin.
Deem not that man, then, and the servile horse,
Seeds mixt with seeds, can CENTAURS e'er create; 910
Or, false alike, that SCYLLAS e'er exist,
Half-maid, half-mastiff; or aught else of shape
Engendered equal, dissonant of limb,
Whose flowery strength at different age matures,
And fades as different; whose connubial fires 915
Burn not the same; whose total tempers jar,
And from discordant foods who nurture life:
For hemlock, oft, rank poison to mankind,
Fattens the bearded goat with foul repast.
So, too, since flame the lion's tawny skin 920
As fiercely burns as aught of brute besides,
Whence, when three natures into one combine,
The front a lion forming, the vile rump
A dragon, and the midst a goat grotesque,
Hence termed CHIMERA, can the breathing lungs 925
Pour streams of fire innocuous from the mouth?
Hence those who hold, when heaven and earth were new,
Urged by that newness as their total proof,
Such monsters rose, and shapes alike absurd,
On equal ground might feign the world's first floods 930
Were liquid gold, her earliest blossoms pearls,
And the first men such massy limbs displayed
That seas might rush beneath each ample stride,
And their vast fingers twirl the heaven's high orb.
But though, commixt, then various seeds of things 935
Thronged through the teeming soil, it flows not hence
That tribes unlike sprang forth with blended limbs.
Still from the soil herbs, fruits, and trees diverse
Shoot in profusion; but each separate class
Ne'er blends preposterous. Things throughout proceed 940

In firm, undevious order, and maintain,
To nature true, their fixt generic stamp.
  Yet man's first sons, as o'er the fields they trod,
Reared from the hardy earth, were hardier far;
Strong built with ampler bones, with muscles nerved 945
Broad and substantial; to the power of heat,
Of cold, of varying viands, and disease,
Each hour superior; the wild lives of beasts
Leading, while many a lustre o'er them rolled.
Nor crooked plough-share knew they, nor to drive, 950
Deep through the soil, the rich-returning spade;
Nor how the tender seedling to re-plant,
Nor from the fruit-tree prune the withered branch.
What showers bestowed, what earth spontaneous bore,
And suns matured, their craving breasts appeased. 955
But acorn-meals chief culled they from the shade
Of forest-oaks; and, in their wintry months,
The wild wood-whortle with its purple fruit
Fed them, then larger and more amply poured.
And many a boon besides, now long extinct, 960
The fresh-formed earth her hapless offspring dealt.
  Then floods, and fountains, too, their thirst to slake,
Called them, as now the cataract abrupt
Calls, when athirst, the desert's savage tribes.
And, through the night still wandering, they the caves 965
Thronged of the wood-nymphs, whence the babbling well
Gushed oft profuse, and down its pebbly sides,
Its pebbly sides with verdant moss o'erspread,
Oozed slow, or sought, redundant sought, the plains.
  Nor knew they yet the crackling blaze t' excite, 970
Or clothe their limbs with furs, or savage hides.
But groves concealed them, woods, and hollow hills;
And, when rude rains, or bitter blasts o'erpowered,
Low bushy shrubs their squalid members wrapped.
  Nor public weal they boasted, nor the bonds 975
Sacred of laws, and order; what loose chance
Offered, each seized instinctive; for himself,
His life, his limbs, instructed sole to care.
  Wild in the forests they fulfilled their loves,
Or urged by mutual raptures, or the male, 980
Stung by fierce lust the female form subdued,

Or bought her favours by the tempting bait
Of acorns, crabs, or berries blushing deep.
And in their keen rapidity of hand
And foot confiding, oft the savage train 985
With missile stones they hunted, or the force
Of clubs enormous; many a tribe they felled,
Yet some in caves shunned, cautious; where, at night,
Thronged they, like bristly swine; their naked limbs
With herbs and leaves entwining. Nought of fear 990
Urged them to quit the darkness, and recall,
With clamorous cries, the sunshine and the day:
But sound they sunk in deep, oblivious sleep,
Till o'er the mountains blushed the roseate dawn.
For, from their birth, with ceaseless sight they traced 995
Night and the noon alternate, nor e'en once
Sprang the dread thought that such alternate night
Would ere long reign eternal, and the noon
O'er their closed eye-balls never glitter more.
This ne'er distressed them, but the fear alone 1000
Some ruthless monster might their dreams molest,
The foamy boar, or lion, from their caves
Drive them aghast beneath the midnight shade,
And seize their leaf-wrought couches for themselves.
Yet then scarce more of mortal race than now 1005
Left the sweet lustre of the liquid day.
Some, doubtless, oft the prowling monsters gaunt
Grasped in their jaws, abrupt; whence, through the groves,
The woods, the mountains, they vociferous groaned,
Destined thus living to a living tomb. 1010
And some, by flight though saved from present fate,
Covering their fetid ulcers with their hands,
Prone o'er the ground death-still, with horrid voice,
Called, till vile worms devoured them, void of aid,
And all unskilled their deadly pangs t' appease. 1015
But thousands, then, the pomps of war beneath,
Fell not at once; nor ocean's boisterous waves
Wrecked, o'er rough rocks, whole fleets and countless crews
Nor ocean then, though oft to frenzy wrought,
Could aught indulge but ineffectual ire: 1020
Nor, lulled to calms, could e'er his traitor face
Lead, o'er the laughing waves, mistrustful man,

Untaught the dangerous science of the seas.
Then want consumed their languid members, now
Full-gorged excess devours us: they themselves 1025
Fed, heedless, oft with poisons: ofter still
Men now for others mix the fatal cup.
Yet when, at length, rude huts they first devised,
And fires, and garments; and, in union sweet,
Man wedded woman, the pure joys indulged 1030
Of chaste connubial love, and children rose,
The rough barbarians softened. The warm hearth
Their frames so melted they no more could bear,
As erst, th' uncovered skies; the nuptial bed
Broke their wild vigour, and the fond caress 1035
Of prattling children from the bosom chased
Their stern ferocious manners. Neighbours now
Joined in the bonds of friendship, and resolved
The softer sex to cherish, and their babes;
And owned by gestures, signs, and sounds uncouth, 1040
'Twas just the weaklier to protect from harm.
Yet all such bonds obeyed not; but the good,
The larger part their faith still uncorrupt
Kept, or the race of man had long expired,
Nor sire to son transferred the life received. 1045
Then nature, next, the tongue's innumerous tones
Urged them to try; and sage convenience soon
To things applied them: as the embryo speech
Of infants first the aid of gesture claims,
And pointing finger to define its sense. 1050
For all their proper powers perceive, and feel
The use intended. The young calf, whose horns
Ne'er yet have sprouted, with his naked front
Butts when enraged: the lion-whelp or pard
With claws and teeth contends, ere teeth or claws 1055
Scarce spring conspicuous: while the pinioned tribes
Trust to their wings, and, from th' expanded down
Draw, when first fledged, a tremulous defence.
But to maintain that one devised alone
Terms for all nature, and th' incipient tongue 1060
Taught to the gazers round him, is to rave.
For how should he this latent power possess
Of naming all things, and inventing speech,

If never mortal felt the same besides?
And, if none else had e'er adopted sounds, 1065
Whence sprang the knowledge of their use? or how
Could this first linguist to the crowds around
Teach what he meaned? his sole unaided arm
Could ne'er o'erpower them, and compel to learn
The vocal science, nor could aught avail 1070
Of eloquence or wisdom: nor with ease
Would the vain babbler have been long allowed
To pour his noisy jargon o'er their ears.
  But why so wondrous seems it that mankind,
With voice and tongue endowed, to notice things 1075
That voice should vary with the things themselves,
When the mute herds, and beasts ferocious, urged
By grief, or fear, or soft, emollient joy,
Press from their lungs sounds various and unlike?
This every hour displays. When half-enraged 1080
The rude MOLOSSIAN mastiff, her keen teeth
Baring tremendous, with far different tone
Threats, than when roused to madness more extreme,
Or when she barks, and fills the world with roar.
Thus when her fearless whelps, too, she with tongue 1085
Lambent caresses, and with antic paw,
And tooth restrained, pretending still to bite,
Gambols, soft yelping tones of tender love—
Far differ then those accents from the din
Urged clamorous through the mansion when alone, 1090
Or the shrill howl her trembling bosom heaves
When, with slunk form, she waits th' impending blow.
  Neighs not the steed, too, different, when at large,
Mid the young mares, in life's luxuriant prime,
Pierced by the goads of pinioned love, he raves,— 1095
And when his full-blown nostrils snort for war,
And every quivering limb the tumult hails?
  So, too, the feathery tribes of wing diverse,
Osprey, or hawk, or cliff-delighted gull
Gathering its vital nurture from the deep, 1100
Far different sounds at different times protrude
Than when they strive, in hostile guise, for prey.
E'en with the seasons some, as fame reports,
Change their hoarse accents, as the social rook,

And time-triumphant raven, when for showers, 1105
Or limpid rills they croak; or, sultry, pant,
Beneath the dog-star, for the freshening breeze.
Since then such various feelings can compel
Kinds the most mute such various sounds to eject,
How just ensues it that the race of man 1110
Should things diverse by countless tones denote?
If through such subjects thou would'st farther pry,
Know, then, that fire from thunder earliest sprang,
Each flame hence gendered. For full many a scene
Worked into blaze, th' ethereal flash beneath, 1115
See we the moment the dread shock is dealt.
Oft see we, too, when, waving in the winds,
Trees war with trees, the repercussion fierce
'Twixt branch and branch, stupendous, heat evolve,
Heat oft by flame succeeded; whence, perchance, 1120
From both mankind their primal fires deduced.
But from the sun first learned they to prepare
The cultured meal hot-hissing o'er the hearth.
For all the plains produced the genial sun
They saw subjecting, by perpetual warmth 1125
Matured, and sweetened: whence the wiser part
First dared the change, and taught their wondering peers
The powers of coction, and the crackling blaze.
Those, too, elected rulers, now began
Towns to project, and raise the massy fort, 1130
Heedful of distant dangers. Into shares
Their herds and lands they severed; and on those
Chief famed for beauty, eloquence, or strength,
Allotted ampler portions: for the form
Much then availed, and much the potent arm. 1135
But wealth ere long was fashioned, gold uprose,
And half the power of strength, and beauty fled.
And still the brave, the beauteous still, too oft,
Alike to riches bow the servile knee.
Yet truest riches, would mankind their breasts 1140
Bend to the precept, in a little lie,
With mind well-poised; here want can never come.
But men will grasp at fame, will pant for power,
As here though fortune fixed her firmest foot,
And, these once gained, all else were peace and joy. 1145

Fools thus to reason! for the total path
Whoe'er attempts finds thronged with toils and pain;
And ENVY oft, like lightning, many a wretch
E'en on its summit fixt, and free from fear,
Abrupt hurls headlong into gulfs profound. 1150
Whence safer seems it far in low estate
Peaceful to serve, than reign, and rule mankind.
But, vainly wearied, let them their life-blood
Sweat out, thus labouring up the tortuous steep,
O'er which, like lightning, ENVY brews her storms, 1155
Fond of high stations—since to tales they trust
Told them by others, while each sense possest
Belies the daring fiction; men not more
Thus act, nor will do, than they erst have done.
  But kings, and tyrants fell, their thrones reversed, 1160
Their sceptres shivered, and the sparkling crown
That decked their temples, to the dust condemned,
Weeping its fate beneath the people's tread,
Soon roused to trample what too much they fear.
So to the rabble sunk, and ranks most vile, 1165
The power supreme; in one gross scramble all
Striving for office, and superior sway.
Yet order hence re-issued: some, at length,
New magistracies planned, new laws devised,
And all concurred t' obey them: for the strife 1170
'Twixt man and man exhausted all their strength;
Hence easier led, spontaneous, to the yoke
Of equal rule and justice. Passion oft
Roused them, they saw, to vengeance too severe,
Broils heaped o'er broils the most ferocious tired, 1175
And ceaseless fear marred all the bliss of life.
For force and rapine in their craftiest nets
Oft their own sons entangle, and the plague
Ten-fold recoils; nor can the wretch with ease
Live blest and tranquil whose atrocious soul 1180
Bursts the dear bonds of peace and social love.
For, though from men, from gods, his guilt he hide,
Detection fears he still; since oft in dreams,
In deep deliriums oft, th' unshackled tongue
Tells crimes aloud for ever else concealed. 1185
  Next learn what cause, through many a mighty realm,

The system first of gods, and altars reared;
Whence the dread rites with solemn pomp pursued
When aught momentous man presumes t' attempt;
The sacred horror, whence, that, through the world, 1190
Builds temples, statues, feasts and fasts ordains.
This to resolve the muse not arduous deems.
  For the first mortals effigies of gods
Oft traced awake, when mused the mind profound,
Yet, mid their dreams, still ofter, and in shape 1195
More vast and wondrous; these of sense possest
Quick they conceived, since moved they every limb,
And spoke majestic with enormous voice
Worthy their matchless make. Immortal life
Next they bestowed, since with unvarying face, 1200
Unvarying form, the phantoms ever rose
(As rise they must); and o'er such massy strength
No power, they deemed, could triumph. Blest supreme
Then, too, they held them, since the dread of death
Such ne'er could haunt, and deeds stupendous oft 1205
Seemed they, in dreams, with utmost ease t' achieve.
  Each various phase, moreo'er, the heavens disclose,
Each various season, punctual to its hour
They marked incessant; and, the cause unknown,
These to the gods, with subterfuge most prompt, 1210
Nodding omnific, idly they referred.
  And in the heavens their blest abodes they placed,
Their awful temples, since both sun and moon
Here radiant reign; sun, moon, and day, and night,
And night's dread fires, and meteors wandering wild, 1215
And swift-plumed lightnings, showers, and crystal dews,
Clouds, snows, winds, thunders, hail, and countless storms,
Through ether threatening with tremendous roar.
  O hapless mortals! that could first ascribe
Such facts, such furies to th' immortal gods. 1220
What myriad groans then reared ye for yourselves!
What wounds for us! what tears for men unborn!
  No:—it can ne'er be piety to turn
To stocks and stones with deep-veiled visage; light
O'er every altar incense; o'er the dust 1225
Fall prostrate, and, with outstretched arms, invoke
Through every temple every god that reigns,

Soothe them with blood, and lavish vows on vows.
This rather thou term piety, to mark
With calm, untrembling soul each scene ordained. 1230
For when we, doubtful, heaven's high arch survey,
The firm, fixt ether, star-embossed, and pause
O'er the sun's path, and pale, meandering moon,
Then superstitious cares, erewhile represt
By cares more potent, lift their hydra-head. 1235
"What! from the gods, then, flows this power immense
That sways, thus various, the bright host of stars?"—
(For dubious reason still the mind perturbs:)
"This wondrous world how formed they? to what end
Doomed? through what period can its labouring walls
Bear the vast toil, the motions now sustained? 1241
Or have th' immortals framed it free from death,
In firm, undevious course empowered to glide
O'er the broad ravage of eternal time?"
Then, too, what breast recoils not with the dread 1245
Of gods like these? who, with unshuddering limbs,
Can view them dart o'er earth their forky flash,
And roll their deep-toned thunder? shrink not then
Whole lands, whole nations? o'er his shivering throne
Starts not the tyrant, through each tendon starts, 1250
Mad with the sense of perfidies and blood,
And in the storm contemplating his due?—
Then faints not, too, the warlike chief who guides
His fleet o'er ocean, when around him roars
The maniac whirlwind? falls he not profound 1255
Mid his vast elephants, and victor hosts,
And tempts the gods with vows, and prays, aghast,
For winds appeased, and soft succeeding gales?
Yet vainly: for the wild tornado oft
Hurls him all headlong to the gates of hell. 1260
So, from his awful shades some POWER UNSEEN
O'erthrows all human greatness! treads to dust
Rods, ensigns, crowns—the proudest pomps of state,
And laughs at all the mockery of man!
When, too, the total earth beneath us quakes, 1265
And tottering towns loud tumble, or so threat,
What wonder men their littleness should feel,
And to the gods all power and might ascribe,

Whence rule they, ceaseless, this stupendous world?
  This clear discussed, learn next that silver, gold, 1270
Lead, hardier copper, iron, first were traced
When, o'er the hills, some conflagration dire
Burned from its basis the deep-rooted grove;
By lightnings haply kindled, or the craft
Of hosts contending o'er the woodland scenes, 1275
A double fear thus striking through their foes:
Or by the shepherd's wish his bounds t' enlarge
O'er tracts of specious promise; or, perchance,
Wild beasts to slaughter, and their spoils possess;
For such, with fire, and guileful pit, mankind 1280
First caught, ere hounds were marshalled to the chace,
Or round the copse the mazy net-work drawn.—
  Whate'er the cause, when now the unctuous flame
Had from their utmost roots, with hideous crash,
Felled the tall trees, and, with its torrid heat, 1285
The soil deep-reddened, rills of liquid gold,
Lead, silver, copper, through its fervid pores
Glided amain, and every hollow filled.
These when, condensed, long after men surveyed
Glistening in earth, attracted by the glare, 1290
The splendid mass they dug; and marked, surprised,
Each formed alike, and, to the channeled bed
Where late it lay, adapted most precise.
Then instant deemed they, liquefied by flame,
The power were theirs each various shape t' assume, 1295
Drawn dexterous out, of point or edge acute;
The power unrivalled theirs each tool to frame
Art needs to fell the forest, and its trees
Mould into planks or beams; to cleave, or smooth,
Pierce, hollow, scoop, whate'er the plan conceived. 1300
  Nor strove they less such instruments t' obtain
From gold, or silver, than stern copper's strength.
Yet vainly: for their softer texture failed,
Powerless to bear the sturdy toil required.
Whence copper chief they courted, while all gold 1305
Neglected lay, too blunt and dull for use.
Now triumphs gold, while copper sinks despised.
So rolling years the seasons change of things:
What once was valued loses all its worth,

And what was worthless rises in its stead, 1310
Swells into notice daily, every hour
Blooms with new praise, and captive leads the world.
And hence how first the vigorous iron charmed,
Thyself, O MEMMIUS, may'st with ease deduce.
Man's earliest arms were fingers, teeth, and nails, 1315
And stones, and fragments from the branching woods.
Then fires and flames they joined, detected soon;
Then copper next; and last, as latest traced,
The tyrant iron, than the copper vein
Less freely found, and sturdier to subdue. 1320
Hence first with copper ploughed they; in the waves
Mixed of wild warfare, dealt its deadly wounds,
And ransacked fields, and cattle; for th' unarmed
Soon yielded all things to the armed foe.
But, by degrees, the blade of iron gleamed, 1325
Triumphant rising o'er the copper tool.
With iron sole the genial soil they clove,
And with its fury tried the doubtful fray.
First, too, on horse-back strove the martial chief,
The reins his left hand guiding, and his right 1330
Ruling the battle: then appeared he next
Drawn by twin steeds in warlike car sublime,
Both hands in action, by the driver sped.
Then twins to twins he joined, and to the car
Fixed the curved scythe. And next the TYRIAN tribes
Taught the huge elephant, with fortress loins 1336
And lithe proboscis, to delight in wounds,
And break the hostile squadrons. Step by step
So DISCORD poured her plagues accurst o'er man,
And heightened daily all the woes of war. 1340
Some too, as story tells, wild bulls and boars
Trained to the strife, and taught to face the foe.
While the rude PARTHIANS marshalled, mid their ranks,
Troops of fierce lions, by their keepers led,
To chain or loose them as the combat called. 1345
Yet vain th' attempt; for, maddened by the blood
Promiscuous spilt, o'er friends and foes alike
Rushed they voracious, shaking their dread crests;
Nor could the horseman his affrighted steed
Calm, or goad on the battle to renew. 1350

Wide sprang the forest-tyrants, all in front
Instant o'erpowering; and, full oft, behind
Tumbling abrupt, the backward crowds, aghast,
Fixed they to earth, vain-grappling,—by their paws
And teeth terrific torn alike to death. 1355
Then, too, the boars, high tossed th' infuriate bulls,
Or crushed them with their hoofs; or through the steeds
Drove deep their gory horns, appalled and faint,
Or 'gainst the ground their frantic foreheads dashed.
While the mad boars against their owners aimed 1360
Their tusks remorseless, tinging with their blood
Th' unbroken darts, (the broken they themselves
Tinged with their own blood, trailing o'er the ground,)
In one joint tumult slaughtering man and horse.
And though the steed strove oft by sudden start, 1365
Sidelong, to fly the fang, or pranced erect
Beating th' unsolid air, 'twas idle all,
Since, rent through many a tendon, down he sunk,
Shaking the champaign. Thus the beasts they deemed
At home tamed amply, mid the battle's rage, 1370
Its wounds, its shrieks, its terrors, and its toils,
Frantic once more surveyed they, void of rule.
All, rampant, raved alike, as frequent now
Raves the young elephant to arms unused,
Trampling his keepers with tremendous crush. 1375
Thus men, perchance, have fought; or, rather, thus
Their fights have planned in secret, pausing deep
O'er the dread ills such schemes were sure t' unfold.
Whence, if such wars have raged, 'tis safer far,
Amid the various worlds through space that throng, 1380
To leave their seat uncertain, than towards earth
Specific point, or aught of world besides.
Yet must they, doubtless, have been waged from hope
Far less of conquest than revenge, each host
Unarmed, unmarshalled, and of death assured. 1385
The rude-stitched hide preceded the wove vest,
Planned after iron, and with iron wrought:
For without this the loom had ne'er been framed,
Its shuttles, treadles, sley, and creaking beam.
Yet men first used the distaff, and the wheel, 1390
Ere learned the female race; since males throughout

Prove prompter far, more dexterous, and expert;
Till the rough swain, at length, such labours mocked
As sole the woman's province, sterner toils
The man's rude strength demanding, hardier arts 1395
His form to harden, nerved with double force.
  But Nature's self th' untutored race first taught
To sow, to graft; for acorns ripe they saw,
And purple berries, shattered from the trees,
Soon yield a lineage like the trees themselves. 1400
Whence learned they, curious, through the stem mature
To thrust the tender slip, and o'er the soil
Plant the fresh shoots that first disordered sprang.
  Then, too, new cultures tried they, and, with joy,
Marked the boon earth, by ceaseless care caressed, 1405
Each barbarous fruitage sweeten and subdue.
So loftier still and loftier up the hills
Drove they the woodlands daily, broadening thus
The cultured foreground, that the sight might trace
Meads, corn-fields, rivers, lakes, and vineyards gay, 1410
O'er hills and mountains thrown; while through the dales,
The downs, the slopes, ran lavish and distinct
The purple realm of olives; as with hues
Distinct, though various still the landscape swells
Where blooms the dulcet apple, mid the tufts 1415
Of trees diverse that blend their joyous shades.
  And from the liquid warblings of the birds
Learned they their first rude notes, ere music yet
To the rapt ear had tuned the measured verse;
And ZEPHYR, whispering through the hollow reeds, 1420
Taught the first swains the hollow reeds to sound:
Whence woke they soon those tender-trembling tones
Which the sweet pipe, when by the fingers prest,
Pours o'er the hills, the vales, and woodlands wild,
Haunts of lone shepherds, and the rural gods. 1425
So growing time points, ceaseless, something new.
And human skill evolves it into day.
  Thus soothed they every care, with music, thus,
Closed every meal, for rests the bosom then.
And oft they threw them on the velvet grass, 1430
Near gliding streams, by shadowy trees o'er-arched,
And void of costly wealth found still the means

To gladden life. But chief when genial Spring
Led forth her laughing train, and the young year
Painted the meads with roseate flowers profuse— 1435
Then mirth, and wit, and wiles, and frolic, chief,
Flowed from the heart; for then the rustic muse
Warmest inspired them: then lascivious sport
Taught round their heads, their shoulders, taught to twine
Foliage, and flowers, and garlands richly dight; 1440
To loose, innumerous time their limbs to move,
And beat, with sturdy foot, maternal earth;
While many a smile, and many a laughter loud,
Told all was new, and wondrous much esteemed.
Thus wakeful lived they, cheating of its rest 1445
The drowsy midnight; with the jocund dance
Mixing gay converse, madrigals, and strains
Run o'er the reeds with broad recumbent lip:
As, wakeful still, our revellers through night
Lead on their defter dance to time precise; 1450
Yet cull not costlier sweets, with all their art,
Than the rude offspring earth in woodlands bore.
Thus what first strikes us, while ourselves as yet
Know nought superior, every charm combines,
But when aught else of ampler boast succeeds 1455
We slight the former, every wish transferred.
Thus acorns soon disgusted; the coarse couch
Of herbs and leaves was banished, and the hides
Of savage beasts deemed barbarous, and uncouth.
Yet the vast envy such these first inspired 1460
Their earliest wearer by the faithless crowd
Fell, and the garb, ferocious fought for still,
Rent into tatters, perished void of use.
Then man for skins contended: purple now
And gold for ever plunge him into war; 1465
Far slenderer pretext! for, such skins without,
The naked throngs had dreaded every blast:
But us no ills can menace, though deprived
Of purple woof brocaded stiff with gold,
While humbler vests still proffer their defence. 1470
Yet vainly, vainly toil earth's restless tribes,
With fruitless cares corroding every hour;
Untaught the lust of wishing where to bound,

And where true pleasure ceases; rendering time
One joyless main, where sail they, void of helm, 1475
Courting for ever tumults, storms, and strife.
  But, through the heavens, the wakeful sun and moon
Driving, meanwhile, their radiant cars sublime,
Taught first to mortals how the seasons rolled,
And things rose punctual ruled by punctual laws. 1480
  Now many a fort they reared, and into shares
Severed the cultured earth; the daring bark
O'er ocean now its light-winged canvass spread,
And state with state in social compact joined:
While rising bards, the types of sound just traced, 1485
Stamped each exploit, and told to times unborn.
Whence nought of earlier date, as facts precise,
Know we, alone by reason led to guess.
  Thus navigation, agriculture, arms,
Laws, buildings, high-ways, drapery, all esteemed 1490
Useful to life, or to the bosom dear,
Song, painting, sculpture—their perpetual need,
And long experience fashioned and refined.
  So growing time points ceaseless something new,
And human skill evolves it into day: 1495
And art, harmonious, ever aiding art,
All reach, at length, perfection's topmost point.

BOOK VI.

Athens, of peerless name, to savage man
First taught the blessings of the cultured field,
His life re-modelled, and with laws secured.
She, too, the soul's sweet solaces first oped
When erst the sage she reared, whose boundless breast 5
Swelled with all science, and whose lips promulged;
Raised, such th' applause his heavenly dictates drew,
Raised after death, in glory to the skies.
  For when he saw with what vast ease mankind
Food, health, enjoyment, length of days obtained, 10

How wealth full oft o'erflowed them with its tide,
How honours thronged on honours, and a race
With every virtue gifted, round them rose,
While still their hearts beat anxious, and their minds
Raged with complaints, vexations, and alarms,— 15
Then deemed the sage the mental vase itself
Unsound throughout; despoiling, hence, the power
Of all that entered, useful or beloved;
Fractured, perchance, or porous, and each boon
Wasting profuse the moment it arrived; 20
Or, from innate corruption, all received
Poisoning perpetual through its total frame.
With truth-instilling precepts, hence, the soul
Purged he, the bounds of wishing and of fear
Pointed precise, and showed to mortal man 25
The good supreme his heart would fain possess.
He oped its essence, he the path disclosed,
Narrow, but straight, that leads us where it dwells.
He, too, evinced what ills on life must wait;
What casual spring, from nature what uprise, 30
At random roaming, or by fate compelled,
And how such ills the soul may best resist;
Nor sink, as frequent sinks the world, ingulfed
In boundless tides of turbulence and care.
For as the boy, when midnight veils the skies, 35
Trembles and starts at all things, so full oft
E'en in the noon men start at things as void
Of real danger as the phantoms false
By darkness conjured and the school-boy's dread.
A terror this the radiant darts of day 40
Can ne'er disperse, to TRUTH's pure light alone
And WISDOM yielding, intellectual suns.
Whence, with more haste, our subject we resume.
Since this vast globe, then, mortal we have proved
Begot, and mortal ether, and that all 45
Reared punctual from their atoms must dissolve,
Mark what remains, attentive; since once more
The master of the gale invites to mount
The daring bark majestic, and each storm
Soothes with his fostering favour as we sail. 50
This mark attentive: for whate'er in heaven,

In earth man sees mysterious, shakes his mind,
With sacred awe o'erwhelms him, and his soul
Bows to the dust; the cause of things concealed
Once from his vision, instant to the gods 55
All empire he transfers, all rule supreme,
And doubtful whence they spring, with headlong haste
Calls them the workmanship of powers divine.
For he who, justly, deems th' immortals live
Safe, and at ease, yet fluctuates in his mind 60
How things are swayed; how, chiefly, those discerned
In heaven sublime,—to superstition back
Lapses, and rears a tyrant host, and then
Conceives, dull reasoner, they can all things do,
While yet himself nor knows what may be done, 65
Nor what may never, nature powers defined
Stamping on all, and bounds that none can pass:
Hence wide, and wider errs he as he walks.
  These notions if thou chase not, driving far
Thoughts of the gods unworthy, and adverse 70
To the pure peace they covet, thou wilt oft
Foretaste the heavenly vengeance that thou dread'st.
Not that the majesty of powers like these
Rage e'er can violate, or dire revenge
Rouse into action; but that thou thyself 75
Hence thy own ease wilt shipwreck with the storms
Of passions fierce and foul; nor e'er approach
With hallowed heart the temples they possess,
Nor, deeply musing, mark with soul serene
The sacred semblances their forms emit, 80
Traced by the spirit, thus of gods assured.
Judge, then, thyself what life must hence ensue.
  Such life the wisdom we propound rejects:
Whence, though already much the muse has sung,
Much still remains that claims her noblest powers; 85
Much of the heavens, and scenes that roll sublime,
Of storms, and thunders—what their dread effect,
And how produced: lest, mid the rending skies,
Fear-struck, thou ask whence flows this winged fire?
Where speeds its fury? by what means empowered 90
To pierce through walls, and then triumphant die?
And, doubtful whence it springs, with headlong haste

Deem it the workmanship of hands divine.
  Muse, most expert! beloved of gods and men,
CALLIOPE! O, aid me as I tread 95
Now the last limits of the path prescribed,
That the bright crown with plaudits I may claim.
  First the blue cope of heaven with thunder shakes
When, borne through ether, clouds with clouds contend
By winds adversely driven; for nought of sound 100
Strikes us where pure the concave; but where thick
Clouds heaped o'er clouds, there, measured by their mass,
The deep-toned peal with broadening bellow roars.
  Then less compact their texture than the frame
Of wood or stone, while less diffused by far 105
Than the loose web of mists, or light-winged smoke.
For else, like those, plumb downward must they rush
With flight abrupt, or swift as these dissolve,
Powerless to buoy the measured hail or snow.
  Then, too, resound they through the sapphire vault, 110
As oft resound the flickering curtains drawn
O'er the thronged theatre from beam to beam.
And oft to fragments frittered by the blast,
Like crackling scrolls they rattle through the skies:
Whence peals the thunder, as the fluttering sheet 115
Of parchment crisp, or canvass broad unfurled,
Lashed by the tempest, and to tatters torn.
  And frequent the fierce clouds with front direct
Fight not, but jostle side-long, with the strife
Their total tracts abrading; whence the harsh, 120
The long-drawn murmur that the soul appals
Ere yet the full-mouthed clangour burst its bounds.
  Then things with thunder oft, perchance, may quake,
And heaven's high walls be shattered through their cope,
When air elastic, by capacious clouds 125
Absorbed redundant, once ferments abrupt,
Broadening their central hollows as it spreads,
And close their sides condensing, till, at length,
Rends the pent power its prison, and aloft
Roars o'er the world the repercussive shock. 130
Nor wondrous this, since, filled with vapour, e'en
The bursting bladder loud alike resounds.
  Oft, too, perchance, the bickering blast itself,

Borne 'gainst the clouds direct, the crash creates:
For ragged oft in various shapes they fly, 135
Ramous and wavy, hence sonorous too;
As when the north-east whistles through the groves
The leaves all rustle, and the branches crack:
Or, haply else, the horizontal gust,
Urged on abrupt, may rend the cloud in twain. 140
For what its force here oft on earth we learn,
On earth where gentler, but where still its rage
Roots up the forest headlong from its base.
Worked into billows, too, the clouds, at times,
Conflicting murmur as the torrent tide 145
Of streams or ocean by the tempest tost.
Oft springs the roar, too, when from cloud to cloud
Darts the blue lightning sudden: these, if filled
With limpid vapour, instant the fierce flash
Quench with vast clamour, as the red-hot steel 150
Fresh from the forge wide hisses when the smith
Deep drowns its fury in the gelid pool.
But if the cloud be sear, with blaze abrupt
Flames it sonorous; as, when blown by storms,
Fires the loose brand the laurel-crested hills, 155
Decrepitating loud, for louder nought
In conflagration crackles than the tree
Sacred to PHŒBUS on the DELPHIC mount.
While not unfrequent may the din resound
From ice or hail-clouds, by the whizzing wind 160
Lashed till they fracture, and, with clattering crash,
Falls the dread avalanche, down dashed amain.
But the blue lightning springs from seeds of fire
With seeds conflicting mid the war of clouds.
As when the flint with flint, or steel, contends, 165
Swift flows the flash, and sparkles all around.
Then earlier see we, too, the rushing blaze
Than hear the roar, since far the fluent films
Of sight move speedier than of laggard sound.
As, when the woodman fells some branch remote, 170
It drops conspicuous ere the bounding blow
Strike on the ear—so the keen lightning far
Anticipates the thunder, though alike
Reared from one cause, from one concussion reared.

Or haply hence the winged lustre springs 175
Trembling amid the tempest; that when air,
Pent in the hollow of a cloud, ferments,
That hollow broadening, as already sung,
And close its sides condensing, the pent air
Heats from its motion; as, from motion, heats 180
All sight surveys; worked oft to flame, and oft
Melted, as melt the missile balls, at times,
Of lead shot rapid. Heated thus, at length,
Th' expanded air bursts sudden from its tomb,
Scattering long trails of corruscating fire. 185
Then rolls the dread explosion, after heard,
Since sound than light far tardier meets the sense.
Yet scenes like these in clouds alone exist
Of utmost depth, whirled mass o'er mass immense.
Nor such conceive exist not, but that sole 190
Breadth they possess, of substance ever void.
For mark what clouds of mountain-bulk the winds
Drive thwart the welkin when the tempests rave;
Or climb the giddy cliff, and, e'en in calms,
View what vast loads, accumulated deep, 195
Roll, tire o'er tire, through ether; and thou, then,
Must own their magnitudes, and well may'st deem
What caves stupendous through such hanging rocks
Spread; what wild winds possess them, through the storm
Roaring amid their bondage, as, at night, 200
Roar through their dens, the savage beasts of prey.
How strive they stern, now here, now there convolved,
Through every point, for freedom, and the seeds
Of latent fire elicit as they roll
Till the full flame concentrate, and the blaze 205
Shoot o'er the heavens as now the big cloud bursts.
Hence, too, perchance, the golden-tressed stream
Of liquid fire through ether oft may play:
That the pure texture of the cloud itself
Holds many an igneous atom whence, when dry, 210
Springs the bright flame, the splendid hues evinced.
For from the sun such seeds the clouds must drink,
Poured down perpetual, or their rainbow skirts
No lustre e'er could redden. These when once
To narrower spheres the lashing winds compress, 215

Forth from their pores the radiant atoms start,
And wave the serpent-brandish through the skies.
  Thus springs the flash, too, when the filmy clouds
Abrade beneath the whirlwind: for, so thin
Wears oft their web by friction, the red seeds 220
Drop, unconfined, wide-glittering. But the blaze
Then noiseless spreads, innocuous, and serene.
  What next ensues, the substance what that forms
The bolt, at times, the mystic meteor shoots,
This its own stroke betrays, its caustic scathe, 225
And the foul scent of sulphur steaming round;
Marks not of wind, or shower, but fire alone:
While, oft, the volant mischief we behold
Domes, towers, and temples kindling into flame.
  This igneous shaft, then, Nature rears, recluse, 230
From subtlest fires, from atoms most minute,
Vivacious most, that nought can e'er resist.
For e'en through walls it pierces, as the power
Of voice or sound, through rocks and solid brass;
The solid brass hence, instant, turned to stream. 235
While oft the vase it empties of its wine,
Yet leaves uninjured; loosening all around,
And wide each pore relaxing, that within
May wind its heat mysterious, and to seeds
Primal, resolve and scatter all contained. 240
Effect the solar lustre in an age
Could ne'er accomplish—so superior this
In force severe, and keen vivacious flight.
  Next whence these fires are gendered, and the power
Peerless they boast e'en ramparts to subvert, 245
Whole towns to tumble, and their splintered beams
Whirl through the heavens,—the hero's tomb dispart,
Shattered to dust, and prostrate o'er the ground
Sheep, and the shepherd, breathless all alike—
Whence these, and equal wonders they achieve 250
Haste we to solve, nor longer urge delay.
  From dense, dark clouds reared mass o'er mass sublime,
Spring, then, these missile fires: for when the cope
Smiles all serene, or but o'ershadowed light,
Such ne'er we mark; since daily ether first 255
Blackens throughout, beneath the clustering crowd

So blackness fancy might conceive all hell
Had, with his direst shades, the welkin stormed,
Shivering with horror every human nerve,
Ere yet the tempest forge his glittering bolts. 260
  Oft, too, o'er ocean, like a flood of pitch,
Some negro cloud prone rushes from the skies,
Dire leader of the darkness, followed close
By hurricanes and thunders, and itself
With fire surcharged, and fierce fermenting air, 265
Driving appalled each mortal to his home.
Whence high through ether must the tempest reach,
Piled cloud o'er cloud, the sun obstructing deep,
Or ne'er such ten-fold darkness could be reared,
Nor rush those headlong torrents that o'erpower 270
Oft every stream, and drown the cultured plains.
  These all with fires, with furious airs are filled,
Whence spring the flash, and repercussive roar.
For, as we erst have sung, full many a seed
Igneous, the hollow-bosomed clouds contain, 275
And many alike absorb they from the sun.
These, when th' aerial tide, expanding still,
Has from the cloud's condensing frame exprest,
And with their fury its own rage combined,
Then springs the fiery vortex, and within 280
Forges profound, and points its deadly darts.
Doubly enkindled, by the boisterous air
Rapid convolved, and touch of fiery seeds:
Then springs, and raves, and ripens, till, at length,
Grown full mature the shackling cloud it cleaves, 285
And down abrupt, with vibratory flash
Diffused o'er all things, flings the missile fate.
Roars next the deep-toned clangour, as though heaven
Through all its walls were shattered; earth below
Shakes with the mighty shock, from cloud to cloud 290
Redoubling still through all th' infuriate vault:
While, loosened by the conflict, prone descends
Th' accumulated torrent, broad and deep,
As though all ether into floods were turned,
And a new deluge menaced man and beast. 295
Such the vast uproar when the red-hot storm
Bursts forth abrupt, and hurls its fiery bolts.

Oft, too, th' external whirlwind, as it flies,
Against the cloud strikes sudden, that within
Holds the ripe tempest, and its form divides. 300
And, hence released, the fiery vortex quick,
The vivid bolt, descends, now here, now there,
In varying path, apportioned to its strength.
And oft the gas projected, though at first
Void of combustion, in its course inflames, 305
Rapid and long; forsaking, as it flies,
Its grosser atoms impotent of speed,
And, from th' abraded air, those more minute
Collecting, prompt th' incipient blaze to rouse.
As when, swift-winged, the ball of missile lead 310
Heats, by degrees its gross unkindling parts
Losing, and fires by atoms gained from air.
Nor seldom may the stroke itself excite
The dread combustion, as with fury flies,
Void of all flash, the fulminating bolt. 315
For, from itself, the shock may seeds alike
Igneous elicit, and the substance struck,-
Instant combined; as, when with steel we ply
The sparry flint, the spark immediate springs,
Nor lingers sluggish from the steel's cold touch. 320
So by the bolt each substance struck must flame,
Inflammable if gendered; nor, though cold
Its elemental air, can hence delay
Once rise, since urged so rapid in its flight;
Flight that, if powerless of itself to fire, 325
Alone, must warm the mischief in its fall.
So speeds th' aerial shaft, its wing so fleet,
So fierce its fell encounter; mid the clouds
So wide its infant forces it collects,
And strives, impatient of restraint, t' escape! 330
Till, grown mature, the full-distended cloud
Bursts instantaneous, and, with matchless might,
Rushes the rampant meteor, as the storm
Of rocks and darts, from giant-engines hurled.
Then too most light, most subtle are its seeds: 335
Whence nought can e'er resist it, and, with ease,
Winds it, unchecked, through pores minutest traced,
Void of delay, and peerless in its speed.

All, too, of weight possessed, below must tend
E'en from their nature: but when once to weight 340
Its power propulsion adds, the substance urged
In force, in fleetness doubled must descend,
Direct in travel, and more potent far
Borne towards the spot that feels its final brunt.
Where long the flight, moreo'er, the substance winged
Augments in haste, and swift, and swifter still 346
Flows ever on, and sturdier strikes its blow:
For seed with seed condenses as they rush,
Pressed to one central focus, till, at length,
Falls with full force th' agglomerated shock: 350
Joined too, perchance, by atoms drawn from air
Whose ceaseless lash gave pinions to its speed.
Then many a frame the missile bolt pervades,
And leaves unhurt, its pores the liquid fire
Transpiercing unresisted; while, reversed, 355
Full many a frame it shatters, since the seeds
Igneous with those th' objective mark that rear,
And stamp it solid, in close conflict meet.
Thus brass with ease, thus, instantaneous, gold
Melt its light seeds, its principles minute 360
Deep-winding sinuous, and, when wound, at once
Bursting each bond, and solving the stern mass.
But chief in autumn, and when spring expands
Her flowery carpet, earth with thunder shakes,
And heaven's high arch with trembling stars inlaid. 365
For few the fires that warm the wintry months,
And soft the gales of summer, nor so dense
Throng then the gathering clouds; but, 'twixt the two
When roll the zodiac-lustres, every cause
Concentrates close the clamorous storm demands; 370
The frith of time then reached that heat and cold
Blends, whose joint power alone the flash creates,
The reign of discord, and the rage of air
Tumultuous torn 'twixt winds and rival fires.
For heat's first rise and cold's ulterior verge 375
Rear the young spring; whence things with things diverse
Must meet, and, meeting, into wrath ferment:
While cold's first chills, and heat's last lingering beams,
Mutual convolved, create th' autumnal times,

Still summer striving with stern winter's rage. 380
Whence spring, whence autumn claim alike the term
Of WARRIOR-SEASONS, thus to fight attached.
Nor wondrous, then, that thunders here should rise,
And storms defile the concave, by the war
Doubtful, disturbed, of whirlwind, rain, and fire. 385
Hence may'st thou clear the thunder's essence trace,
And its vast force develope; from thy hands
Hurling the TUSCAN legends that pretend
Vainly each purpose of the gods t' unfold,
And thus decide whence flows this winged fire; 390
Where speeds its fury; by what means empowered
To pierce through walls, and then, triumphant, die;
Or what portends its brandish when displayed.
For if from JOVE, or JOVE'S associates, flow
The roar tremendous, shattering heaven's high arch; 395
If these, at will, the flaming bolt direct,—
Why 'scapes the guilty from its vengeful stroke,
Nor falls, transpierced, a monument to man?
Or, rather, why, beneath the fiery storm,
Sinks he unconscious of committed crime, 400
Void of all blame, yet victim to its ire?
Why seek the gods, too, solitary scenes
And labour fruitless? need they, then, essay
Their wontless arms, and nerve them for the fight?
Why thus their sire's tremendous wrath exhaust 405
O'er the bare ground? or why himself permit,
Nor, for his foes, the fiery bolt restrain?
Why waves the god, moreo'er, the serpent-flash,
Why rolls the thunder ne'er in cloudless skies?
When throng the gathering clouds, adown the storm 410
Descends he first, that, from a nearer point,
With surer aim, his javelin he may dart?
Yet why attack the ocean? o'er the waves
Waste his wild ire, the floods, and liquid fields?
If, too, he mean mankind the bolt should miss, 415
Why form its structure viewless to the sight?
While, if he hope to strike us unprepared,
Why flash, conspicuous, and invite escape?
Why first fill heaven with groans and darkness dire?—
Then, canst thou deem him competent at once 420

Through various points to thunder? or the fact
Dar'st thou deny that many a fatal bolt
Falls at the same dread moment? while the year,
Ceaseless, such fact renews, and proves precise
That as the shower at once o'er many a scene 425
Rushes amain, so darts th' ethereal shaft.
And why, moreo'er, the temples of the gods,
Why his own altars, with the fiery storm
Fells he, promiscuous? into atoms why
Rends their best statues; and, with frantic aim, 430
E'en from himself his image-honours wrest?
Or o'er the hills why hurls he chief his ire,
The rocks abrupt, and mountains most sublime?
Hence, with much ease, the meteor may we trace
Termed, from its essence, PRESTER by the GREEKS, 435
That oft from heaven wide hovers o'er the deep.
Like a vast column, gradual from the skies,
Prone o'er the waves, descends it; the vext tide
Boiling amain beneath its mighty whirl,
And with destruction sure the stoutest ship 440
Threatening that dares the boisterous scene approach.
Thus solve th' appearance; that the maniac wind,
In cloud tempestuous pent, when unempowered
To burst its bondage, oft the cloud itself
Stretches cylindric, like a spiral tube 445
From heaven forced gradual downwards to the deep;
As though some viewless hand, its frame transpierced,
With outspread palm had thrust it from above.
This, when, at length, the captived tempest rends,
Forth flows it, fiery, o'er the main, and high 450
Boils from its base th' exaggerated tide.
For, as the cone descends, from every point
A dread tornado lashes it without,
In gyre perpetual, through its total fall:
Till, ocean gained, the congregated storm 455
Gives its full fury to th' uplifted waves,
Tortured, and torn, loud howling midst the fray.
Oft, too, the whirlwind from the clouds around
Fritters some fragments, and itself involves
Deep in a cloudy pellicle, and close 460
Mimics the prester, lengthening slow from heaven;

Till, earth attained, th' involving web abrupt
Bursts, and the whirlwind vomits and the storm.
Yet, as on earth the mountains' pointed tops
Break oft the texture, tubes like these, at land 465
Far rarer form than o'er the marble main.
The rise of clouds next calls us. When in heaven
Meet various bodies subtile and sublimed,
Of jagged figure, instant they cohere;
Not strong the junction, but cohesive still. 470
Thus spring the lighter clouds; and these conjoined,
Comprest, condensed, and congregated close,
Urged by the winds, to boundless bulk augment,
Till broad o'er ether frowns the finished storm.
Chief o'er the mountain-tops, as nearest heaven, 475
In tide perpetual smoke the yellow steams
That clouds engender, here conspicuous first.
For, undiscerned at birth, the winnowing wind
Here in huge masses, palpable to view,
Dense, and redundant, drives them, whence aloft 480
Mount they embodied from the humid height.
For fact itself demonstrates, as we climb
The tall, steep cliff, that breezy scenes like these
Ope the best path for vapours to the skies.
Then from the seas that nature much selects 485
Prove the light garments fluttering o'er the strand
That catch the rising moisture; doubtless whence
Much, too, the clouds from ocean's restless brine
Draw ceaseless forth, their airy base to build:
For, as the blood, so fluids all transpire. 490
Thus from each river, e'en from earth itself,
We trace th' ascending moisture, and the mist,
Like vital breath, borne upwards: which, when once
Firmly condensed, and congregated close,
Veil all the heavens with clouds, and darkness deep; 495
While tides of rushing ether closer still
Drive the light woof, and weave a thicker shade.
Then, too, perchance, the primal seeds of things,
Borne from without, the mingled mass may join,
And swell the cloudy drapery. These how wide 500
Diffused through space, how countless their amount,
With what vast speed, what instantaneous flight

O'erpower they every distance, we erewhile
At large developed. Nought of wonder, then,
That storms, and blackness, gendered e'en above, 505
Should oft abrupt o'er mountains, plains, and seas
Of amplest breadth, their dreary mantle stretch;
Since through all ether's nice, innumerous pores,
O'er the wide world like spiracles bespread,
The thronging atoms enter and retire. 510
Come, now, and next, how rain in clouds sublime
Forms, and o'er earth in genial showers descends,
Attentive, learn. And, first, the muse shall show
That seeds at once of clouds and water rise
From all created, whence alike augment 515
Water and cloud, and all that cloud contains,
As with its frame augments the vital blood,
Or aught besides of moisture through the limbs.
Then, too, the cloudy floscules, as they fly
O'er the broad main, the briny dew imbibe, 520
As pendant fleeces from the new-shorn flock.
While from each stream, alike, their spongy webs
Drink the light moisture; which, when once comprest,
Atom with atom, in innumerous modes,
Innumerous masses, the redundant clouds, 525
Prest by the winds, strive doubly to discharge:
For, while such pressure bursts them, their own weight,
Cloud thronged o'er cloud, compels the falling shower.
Then, too, abraded by the winnowing winds,
Or by the sun relaxed, the cloudy film 530
Pours down its moisture, as the strainer thick
Of woof redoubled, near the solvent fire,
Drops o'er the vase its juices clear-refined.
But fierce the torrent falls when fierce at once
Clouds press o'er clouds, and winds with winds contend. 535
And much the rain persists, and long its stay,
When countless crowd th' irriguous seeds above,
Profuse the louring vapours, and the clouds
Roll multitudinous, of bound devoid,
And all the smoking earth the wet rehales. 540
And when the sun, amid the rushing shower,
Gleams from a point all adverse to the storm,
The crystal moisture, as it falls, his rays

Ceaseless reflects, and rears the gaudy bow.
  Thus all, through heaven, that forms or floats sublime,
Or in the clouds concretes, wind, hail, and snows, 545
And hoary pearl, and frost's stupendous power,
Stern hardener of the waters, the restraint
That chains the rivers panting to be free,
These all the mind may hence, with ease, unfold; 550
Their rise develope, why created solve,
Taught by the seeds that form their various frames.
  Next learn the cause why earth's firm frame, at times,
Quakes wide around. And, first, conceive her shaped
Below as upwards; filled with roaring winds, 555
Fissures, and caverns, crags, and pools profound,
And fractured rocks, through all her bosom spread:
While, mid her hollows, boundless rivers roll,
Wave after wave, and hide their secret heads:
For fact itself proves earth throughout the same. 560
  These truths premised, earth trembles, then, profound,
Shook into ruins, when the rage of time,
Deep down the caves immensely scooped below,
Tumbles th' incumbent hills; abrupt they fall
With vast concussion, while, from scene to scene, 565
Winds the dread tremour, propagated quick:
And well may wind; since e'en the sluggish wain,
Though filled but half, as o'er the street it rolls,
Shakes every mansion; since, alike disturbed,
Quake they when, near, the light aerial car 570
Drawn by fleet coursers whirls its rattling wheels.
  Earth trembles, too, when, undermined by age,
Wide into lakes of boundless breadth beneath
Th' incumbent glebe sinks sudden, her vast shell
By the deep dash far staggered, as the bowl 575
Reels, filled with fluid, when its fluid rocks.
  And when the winds, that oft her hollows crowd,
Rush all collected, with fermenting force,
Towards one vast quarter,—where the fight prevails
Earth nods o'erpowered; each building reared above 580
Totters throughout, while those of loftier height
Dread instant ruin, their connecting beams
Disjointed, torn, and tumbling from their posts.
And shrink mankind, then, from the creed that seem

Some ruthless conflict the wide world itself 585
Shall crush with wreck unbounded—while they see
Earth shook so largely through her inmost mass?
E'en now, should ne'er such winds their rage relax,
Their boisterous ferment, nought of power opposed
Could stem th' assault, and instant fate must flow. 590
But as, by turns, these labour, and forbear,
Now firm advance, and now, exhausted, fly,
Earth ofter far is menaced than destroyed.
For, from her centre thrown, she straight returns,
Confirms her balance, and her course resumes; 595
While, mid the shock, each building reels; the high
Most, less the low, the lowliest least of all.
Hence, too, the mighty tremour: that when wind,
Or air elastic, into tumult worked,
Upreared within, or entering from above, 600
Still towards one point of earth's vast caverns pours,
Whirled in wild vortex, its enormous force
At length bursts sudden—and the solid soil
Fractures amain, with broad tremendous yawn.
Such SYRIAN SIDON saw, and ÆGIUM such, 605
Pride of MOREAN plains. What earthquakes dire,
What towns o'erthrown has this disruption sole
Of frantic air engendered! what vast walls
Have tumbled from their base! what peopled ports
Deep down the main in common ruin sunk! 610
E'en should th' elastic vapour the stern soil
Cleave not abrupt, yet, issuing through its pores,
Earth trembles still, with quivering horror shook,
As shakes the frame, through every limb convulsed,
When cold severe assaults us unprepared. 615
A twofold terror, then, mankind appals;
Above, the buildings menace, and, below,
The shuddering ground threats instant into depths
Boundless to sink, or ope its giant jaws
And, in a moment, swallow all that lives. 620
E'en those who hold that heaven and earth exist
Each incorrupt, and of eternal date,
Touched by the present danger, then betray
Strong latent dread lest earth forsake their feet,
Down plunging headlong to th' abyss below; 625

Lest nature fail, and, o'er the total world,
Void of all bounds promiscuous ruin rush.
Next why the main o'erflows not let us solve.
And, first, man wondrous deems it the hoarse fall
Of mountain cataracts, the ceaseless press 630
Of streams innumerous from innumerous points,
Year after year, its limits never swell.
Yet add to these whate'er from heaven descends
In showers and tempests, scattered wide alike
O'er earth and ocean, every fountain add, 635
And still the vast accumulated mass,
Weighed with the deep, would scarce a drop exceed.
Whence nought stupendous that it ne'er augments.
Next, daily, much the solar heat exhales.
For as the sun o'er humid garments pours 640
His beams profuse, with instant haste they dry.
But broad and spacious spreads the liquid main;
Whence, from each spot though small the lymph absorbed,
Yet large th' amount its total surface yields.
Then, too, the flickering winds with ceaseless wing 645
Winnow an ample portion. Such their power
Oft, in a night, the swampiest paths they cleanse,
Brush off the wet, and harden all the mire.
And earlier have we taught that every cloud
Imbibes, luxurious, the redundant dew 650
Raised from the face of ocean; and o'er earth,
Lashed by the breeze, in copious showers distils.
And as this mass terrene of frame consists
Porous throughout, and with a thousand coasts
Girds all the deep—since to the deep it sends, 655
In part, its fluids, doubtless so, alike,
Part still retreats, and, percolated pure,
Fresh bubbles distant at some fountain-head.
Whence winds again the dulcet tide through paths
Its liquid feet have printed oft before. 660
Now next explain we whence, from ÆTNA's jaws,
Bursts the bright storm of wild projectile fire;
Storm that, once kindled o'er SICILIA's plains,
Raves with no common ruin, as around
From many a realm the general eye it draws, 665
And strikes the general heart with dread severe,

Wondering, beneath the dingy-flaring cope,
What new adventure Nature means t' achieve.
  Such facts t' unfold thy mind must deep, and wide.
And long expatiate o'er their separate parts; 670
Recall the doctrine that th' ENTIRE OF THINGS
Throughout is boundless; and how small, reflect,
One system sole when with th' ENTIRE compared
With systems thronging; systems so complex
That each to all weighs less than man to earth. 675
A creed once rooted that will raise thee oft
O'er vulgar wonders, and each fact evolve.
  Who strange conceives it that this mortal frame
Should rage, at times, with fever, or aught else
Of keen disease through all the body spread? 680
That gout the foot should madden? ache severe
Torture the teeth, or wound the visual orb?
Or that the hallowed erysipelas
O'er every limb should trail his serpent fires?
Here nought lurks wondrous: for from various seeds 685
Spring they, confest, in various modes combined;
While heaven and earth alone such seeds adverse
Amply supply to rear the tyrant ill.—
Deem, then, alike, that heaven and earth themselves
Draw from the boundless whole the stores evinced 690
When, with wild horror, quakes the world abrupt;
O'er earth and main when rushing whirlwinds sweep,
Or heaven inflames with fires from ÆTNA thrown.
For heaven thus blazes from the seeds of fire
Countless collected, as the ponderous storm 695
Falls in full shower when aqueous atoms throng.
  "But far too vast the sparkling deluge poured!"
And vast alike to him the stream must flow,
In earlier life who ne'er so vast has seen:
And vast each tree, each sentient tribe, and all 700
Till now ne'er witnessed; while each sight so vast,
While heaven, earth, main, united ne'er augment
The boundless compass of th' unbounded whole.
  Explain we, then, from ÆTNA's forge immense
How flows the fiery deluge when enraged. 705
And, first, the mighty mount is scooped throughout,
High arched with sparry columns: winds and airs

Fill all its caves, for agitated air
To wind converts, resistless in its might.
This, when once heated, and its torrid breath 710
Has heated, too, the mingled mass around
Of rocks, and earths sulphureous, and a flood
Of frantic flame engendered—bursts abrupt,
And, through the mountain's monster-jaws, ejects
Towards every point its embers, and its blaze; 715
Belches whole atmospheres of smoke, and high
Hurls from its base huge crags of weight immense.
To air incensed such wonders, all, resolve.
Then to the main, too, spreads th' enormous hill
Its roots profound, the rough, rebellowing surge 720
Baffling at each encounter: for thus far
Doubtless extend its glimmering halls, and hence
Draws it, at times, fresh stores of maddening wind;
An ampler storm hence brewing, and its flames,
Its rocks, its sands projecting wider still: 725
While, at its top, the whirlwind craters throng,
By us termed aptly its voracious jaws.
Thus many a cause we bring; for many a cause
Oft it behoves us, though but one subsist.
As when, at distance, some dead corse thou view'st 730
Stretched o'er the ground, full many a cause thy mind
Must state whence fell it ere it state the true.
For whether poison triumph or disease,
Cold, or the sword, it ne'er can prove remote;
Though of such deaths thou learn, from those informed, 735
One here prevail.—Thus judge of things at large.
The NILE now calls us, pride of EGYPT'S plains:
Sole stream on earth its boundaries that o'erflows
Punctual, and scatters plenty. When the year
Now glows with perfect summer, leaps its tide 740
Broad o'er the champaign, for the north-wind now,
Th' ETESIAN breeze, against its mouth direct
Blows with perpetual winnow; every surge
Hence loiters slow, the total current swells,
And wave o'er wave its loftiest bank surmounts. 745
For that the fixt monsoon that now prevails
Flows from the cold stars of the northern pole
None e'er can doubt; while rolls the Nile adverse

Full from the south, from realms of torrid heat,
Haunts of the ETHIOP-tribes; yet far beyond 750
First bubbling, distant, o'er the burning line.
Then ocean, haply, by th' undevious breeze
Blown up its channel, heaves with every wave
Heaps of high sands, and dams its wonted course:
Whence narrower, too, its exit to the main, 755
And with less force the tardy stream descends.
Or, towards its fountain, ampler rains, perchance,
Fall, as th' ETESIAN fans, now wide unfurled,
Ply the big clouds perpetual from the north
Far o'er the red equator; where, condensed, 760
Ponderous, and low, against the hills they strike,
And shed their treasures o'er the rising flood.
Or, from the ETHIOP-mountains, the bright sun
Now full matured, with deep dissolving ray
May melt th' agglomerate snows, and down the plains 765
Drive them, augmenting, hence, th' incipient stream.
But come, th' AVERNI beckon; and the muse
Their nature, next, their depths, their lakes shall pierce.
And first, their name from power adverse to birds
Draw they: for when the feathery people once 770
Touch but their confines, instant they forget
Their pinioned oars, their plumy sails relax,
And down, plumb down, profuse, with fluent neck
Plunge they to earth, if earth their bottom form,
Or into pools, if pool the mystic depth. 775
Such the dread gulf at CUMÆ, belching high
Fumes of hot sulphur o'er the mountains round.
Such, too, at ATHENS, deep within her walls,
Steams from the tower, MINERVA's temple near;
Where never raven, e'en when victims smoke 780
O'er the red altar, shows his jetty plumes.
Yet not restrained, as GRECIAN poets sing,
By wrath of PALLAS o'er the tell-tale spy
Profusely lavished, but the place alone.
Such place in SYRIA, too, as fame reports, 785
The traveller traces, o'er whose dire domains
The brute that treads drops instant, as though felled
In prompt oblation to th' infernal powers.
These all subsist from Nature's general laws,

And whence their source their earliest rise unfolds; 790
Lest we should judge them the first gates of hell,
And through such portals deem th' infernal gods
Draw the pale spirit to the shades below;
As, with their breath, the foot-winged deer, 'tis said,
Draw from the furze the spotted race of snakes; 795
A creed how false our numbers now shall prove.
First we maintain, then, and have earlier oft
Maintained the same, that Nature's primal seeds
In shape wide vary, whence the frame of things
Much holds nutritious, baneful much, and big 800
With certain fate; while different foods, to kinds
Different themselves, an ampler nurture yield,
As reared with bond, with texture reared unlike.
This have we erst decided. Sounds abhorred
Wound the vext ear; the shuddering nostrils drink 805
Oft atoms harsh and hateful to their smell;
Nor fewer far the bodies touch rejects;
Hostile to sight, or grievous to the taste.
Then, too, how frequent things with power adverse,
Noxious to life, e'en man himself oppress. 810
Thus there are trees whose shade malignant strikes
With instant head-ache all, in idle hour,
Who loosely throw them on the grass beneath.
While some, o'er HELICON, a blossom bear
Of scent so deadly, few the smell survive. 815
These spring from earth; for earth within her holds
Innumerous seeds of things innumerous, joined
In countless modes, and yields them as they blend.
The midnight taper, as its dying snuff
Pours o'er the nostrils, stupifies with sleep 820
Deep as, the brain, when apoplexy numbs.
So stupid swoons the maid, too, who in hour
Of full, o'erflowing nature, castor gross
Scents, floating round; and from her graceful hands
Drops, loosely drops the polished work she plies. 825
But endless are the substances that, thus,
Melt all the members, and the soul subvert.
If long thou loiter in the public bath,
Or bathe at home o'erloaded with repast,
Wilt thou not faint, unsinewed by the warmth? 830

Dies not each sense beneath the charcoal-fume
If from the brook we drink not ere they fail?
While the foul gas, that from fermenting must
Springs, like a blow deep stuns us with its force.
Then breeds not earth, imbedded in herself, 835
Bitumens, sulphurs, ever steaming forth
In dews malignant? from the mines profound
Of gold, or silver, rise not such o'er those
Who delve, unblest, amid their rigid veins?
What ills hence issue! o'er the miner's limbs 840
What ghastly hues! what horrors o'er his face!
Hast thou not heard how soon existence fails,
How languid life, mid wretches thus condemned?—
These vapours all earth genders in herself,
And breathes through many an opening to the day. 845
Thus breathe th' AVERNI through their openings dire
Fumes reared from earth, and fatal found to birds,
Tainting far round the heavenly breeze that blows.
Here, as the plumy people first approach,
The fluent bane arrests them, and below 850
Deep plunges headlong down th' envenomed gulf,
Where their last pulse soon fails through every limb.
A wontless thrill, a giddiness of brain
First feel they, falling, till, profounder sunk,
Life flows amain, since more condensed th' assault. 855
Then, too, perchance th' AVERNI may, at times,
With deadly blast the total air dissolve,
Full nigh to vacuum, 'twixt the flutterer spread
And earth beneath; whence, once the spot attained,
Vain prove his wings, each utmost effort vain 860
To prop the parent body: robbed abrupt
Of buoyant ether, powerless, and forlorn,
Down, like a weight, he tumbles through the void,
And from each pore his airy soul exhales.
In wells profound the gurgling lymph that springs, 865
Springs chilliest in the summer:—for all earth
Expands beneath the sun-beams, and emits
The seeds of fire far prompter to the day:
Whence more her surface burns with heat evolved,
And colder flows the fountain deep-concealed. 870
While, mid the wintry frosts, her frame contracts,

Condenses closer, and, condensing, strains
The fiery atoms into caves and wells.
A fount, 'tis rumoured, near the temple purls
Of JOVE AMMONIAN, tepid through the night, 875
And cold at noon-day: and th' astounded sage
Stares at the fact, and deems the punctual sun
Strikes through the world's vast centre, as the shades
Of midnight shroud us, and with ray reverse
Maddens the well-spring:—creed absurd and false. 880
For if, full blazing o'er the naked tide,
Poured from above in fierce meridian might,
No heat he gender—how can his deep orb
Flame through earth's solid substance, and the lymph
Lash into fervour? how—since e'en at noon 885
Scarce can his rage the cottage wall transpierce?
Dost thou the cause demand, then? clearly hence.
That round the fountain earth more spongy spreads
And seeds of fire throng ampler; whence, when night
Pours o'er the world his dew-distilling shades, 890
The chilled, contracting soil here strains abrupt,
As though comprest by fingers, towards the fount
Such seeds profusely, and the bubbling wave
Proves to the touch, the taste more tepid proves.
But when, reversed, the sun with new-born beam 895
Earth rarefies, and quickens, back profound
Fly the young fire-seeds to their native haunts,
The fount forsaking; whence the sparkling tide
Tastes in the day more frigid than at night.
Then, too, the crystal fluid, by the sun 900
Thrilled, deep dilates beneath his trembling ray,
And yields its embryo fires; as, when congealed,
Yields it alike its frost beneath the blaze,
Melts all its ice, and every bondage bursts.
A fount there is, too, which, though cold itself, 905
With instant flare the casual flax inflames
Thrown o'er its surface; and the buoyant torch
Kindles alike immediate, o'er its pool
Steering the course th' ethereal breeze propels.
Nor wondrous this; for countless seeds of heat 910
Throng through the water, raised from earth profound,
And thence, in turn, projected into air

Yet ne'er so active as the wave to warm.
Some latent energy the seeds, moreo'er,
Thus scattered, forces to the water's brim 915
Sudden, and there concentrates; as, at times,
Springs the fresh fount amid th' unbounded main,
And drives the brine broad circling as it flows.
Nor thus unfrequent to the thirsty crew
Does bounteous nature ope the dulcet draught, 920
High-spouting freshness through the world of salt.
So through the well-spring that the flax inflames
Burst forth the lurking fire-seeds to the day,
Commingling with its fibres; which achieved,
Or with the torch once blended, all is blaze; 925
Themselves alike high-charged with latent fire.
When, just extinct, the taper we apply
To one full blazing, seest thou not how soon,
E'en ere it touch, th' extinguished snuff relumes?
Relumes not thus the torch, too? and alike 930
Full many a substance, useless to recount,
At distance kindled ere the flame arrive?
So acts the fountain, such the cause concealed.
And next explain we by what curious law
The stone termed MAGNET by the GREEKS, attracts 935
Th' obsequious iron; magnet termed since first
Mid the MAGNETES men its power descried.
Vast is the wonder, mid th' admiring crowd,
This stone excites; for oft a pendant chain
Forms it of rings unlinked and loosely joined. 940
And frequent see they, sporting in the breeze,
Such rings quintupled, in succession long,
The lowlier cleaving to the sphere above,
And this to that, proclaiming, as it hangs,
Its deep-felt conscience of the magnet's power. 945
Such the resistless energy it boasts.
In facts like these full many a truth profound
First must we prove, ere yet their power thou trace,
And many a maze unravel;—thou with heed
List, then, for now thy closest ear we claim. 950
And, first, from all things bodies most minute
Flow forth for ever, scattered, and diffused,
Wounding the pupil, and compelling sight.

From forms defined spring odours; from the sun
Thus heat exhales; cold, dewy damp from streams, 955
And the rough spray from ocean, with fierce fang
Gnawing the mound that dares resist its waves.
Thus sounds, too, flutter through the breezy air;
And when the beach we traverse, oft the tongue
Smarts with the briny vapour; or, at hand, 960
If the bruised wormwood yield its acrid juice,
We taste th' essential bitter and abhor.
Thus some light effluence streams from all create,
Streams forth for ever, void of dull repose,
Towards every point diffused; for man perceives, 965
Where'er his station; sight alike exists,
The sense of fluent odours, and of sounds.
This thus premised, recall we next to mind
How rare the frame of all things, as erewhile
Conspicuous proved we in our earliest strain. 970
A theme, though ever useful, useful most
Found, when compelled, as now, to re-affirm
That nought exists but matter mixt with void.
For, first, the roofs of rocky caverns sweat
With dews, and crystals; and the frame of man 975
Throws through each pore the perspirable lymph.
Beard through the visage permeates, through each limb
Peeps the young down, and every meal imbibed
Flows through the veins profuse, and feeds, augments,
And quickens all things e'en to th' utmost nails. 980
Cold the tense brass, and heat alike transpierce:
So pierce they gold, and silver, as the vase
Proves, filled with fluids by the fingers clasped.
Through the stone wall voice winds its sinuous way,
And frosts, and odours, and the power of heat: 985
Heat that pervades e'en steel, and through the helm
Rushes, where rests it round the fretted neck.
So rushes, too, contagion from without
Deep through each quivering organ. The red storm
In heaven engendered pierces earth profound; 990
Or, if in earth it ripen, heaven above
Shakes with the shock through all its shattering walls.
For nought combines through nature void of pores.
Then not unvarying in exterior shape

All atoms flow from all things; nor alike 995
On all things act they, with effect unchanged.
The beam that burns and dries the moistened earth,
Fluxes the frost, o'er mountains piled sublime
Rolls, in loose tide, the macerated snows,
And with its effluence melts th' adhesive wax. 1000
Fire fuses gold and copper, but contracts
The flesh of beeves and shrivels their tough hides.
Red from the flame, steel hardens in the pool,
But hides and flesh relax. The bearded goat
On the wild olive most luxurious feasts, 1005
Deems it all nectar, all ambrosia deems,
While nought so hateful to the mouth of man.
Swine fly perfumes, sweet marjoram is death,
Scents that, with us, the spirit oft revive.
While the gross slough, mere filth among ourselves, 1010
To them proves cleanliness; and deep within
Plunge they, all joyous mid its miry waves.
This, too, the muse should notice ere we yet
Full on the magnet enter; that, as things
Oft various classes hold of pores within, 1015
Each class from each must differ, and a breadth,
A shape possess, appropriate to itself.
For many a sense each vital tribe endows,
Various, empowered as various parts t' achieve
And mark its proper objects as they rise. 1020
Thus sounds by one assail us, this conveys
Taste from each juice, and streams of odour that.
So the firm stone some substances transpierce,
Some wood, some gold, some silver, crystal some,
Heat those pervading, the light image this. 1025
And thus through all things different objects rush
With ease far different; nature to their forms,
Their powers diverse, as long anterior proved,
Th' appropriate duct adapting most exact.
These axioms thus premised, then, and maintained, 1030
All else flows obvious, and the total cause
Unfolds spontaneous that the steel compels.
First, from the magnet countless atoms stream
In tide perpetual, chasing the mid air
'Twixt the stern iron placed, and stone itself. 1035

This space once emptied, and a total void
Formed broad between, abrupt the seeds of steel,
Thrown forth alike, usurp it, close conjoined,
Dragging the ring resistless as they rush.
For nought exists with primal seeds more harled, 1040
More clinched, more tangled in commutual bonds
Than the cold steel, all horror to the touch.
Whence wondrous less the doctrine thus announced,
That from the steel those atoms ne'er can part,
Urged through the vacuum, but the ring succeeds: 1045
Abrupt succeeds it, gains the stone abrupt,
And fixt and firm in mystic league coheres.
So flies it, too, towards every point alike,
Borne upwards, or transverse, where'er the void
Spreads round the magnet, following, in its course, 1050
The seeds that nearest touch the vacant sphere,
Themselves hence foremost prest from strife within,
And powerless, else, through ether e'er t' ascend.
Hence, too, the ring draws pinions in its flight:
That as, at once, secedes th' anterior air, 1055
And forms the void, th' elastic tide behind
Drives it, perpetual plying at its back.
For air encircles all things; but alone
Can act coercive, and the steel protrude,
When first the momentary void exists, 1060
Opes its pure passage, and admits it free.
Then potent acts it; through the total ring,
Through every pore, its puny atoms darts,
Chasing the steel as winds the bark impel.
Then air, moreo'er, whate'er exists, within 1065
Holds, doubtless; since of tenuous frame composed,
And by surrounding air for ever lashed.
Whence air through iron roves, too, deep-concealed,
Ceaseless in action, and the docile ring
Plies with internal tempest, doubly hence 1070
Borne towards the void where centres all its aim;
Armed with new speed, new succour for the flight.
Oft from the magnet, too, the steel recedes,
Repelled by turns, and re-attracted close.
And oft in brazen vessels may we mark 1075
Ringlets of SAMOTHRACE, or fragments fine

Struck from the valid iron, bounding high
When close below the magnet points its powers.
So vast th' aversion, e'en the brass beneath,
Feel they at times; the discord such induced. 1080
Thou thus resolve the problem: that the brass
First throws, as nearest, its attenuate breath,
And fills the pores of iron; which when, next,
The stream magnetic reaches, it in vain
Toils to transpierce, each avenue possest. 1085
Checked in its course, with wave perpetual, hence,
The rings, the raspings beats it, and above
Far off repulses, else embracing strong.
Nor strange conceive it the magnetic stream
Nought drives besides: for powers there are resist, 1090
Like the firm gold, confiding in their weight;
While some a frame so loose present and rare
The rushing vapour permeates, void of touch.
Such frame all timbers offer. But the steel
Springs 'twixt the two: and hence, when through its pores
Clogged with the brass effluvium, the full flood 1096
Flung from the magnet dashes it sublime.
Nor are such unions through created things
Discerned unfrequent, nor severe the task
To point affinities of equal strength. 1100
Lime only stones connects; the strong steer-glue
Joins planks so firm, a bond so valid rears,
The closest-textured table through its veins
Will easier sever than the glue desist.
The vine's pure juice in close alliance dares 1105
League with the fountain; while the ponderous pitch
The light-winged oil refuses. With the fleece
The purple murex so minutely blends
Nought e'er can part them: no—though e'en thou toil
Day after day with all great NEPTUNE's waves: 1110
No—his whole sea the stain would ne'er wash out.
One cement sole with gold concentrates gold,
And nought but pewter brass with brass unites.
Such facts how numerous! but why more recite?
To thee 'twere labour useless, and perplext; 1115
And to the muse unjust; for much remains,
Much, though but few the numbers we design.

Where things once fit with textures reared reverse,
Rare and o'ercharged, and this to that, and that
Responds to this, alternate, they combine 1120
With firmest junction: but combine they, too,
Oft as though hooks and ringlets formed the bond:
And thus, perchance, the magnet meets the steel.
Now whence diseases rise, the morbid power
What, that, once gendered, spreads its baneful blast 1125
O'er man's pale offspring, and the brutal throngs,
Next will we sing. Already hast thou heard
That seeds exist, from many a substance flung,
To life salubrious, yet, too oft, reversed,
Noxious, and big with death. When spring the last 1130
Through heaven full flocking, all the vital air
Sickens immediate, through its texture changed.
And thus full flock they, their pestiferous power
Fanning around them, from intrinsic birth
In heaven itself begot as mists or clouds; 1135
Or breathed from earth, when once her soddened soil
Ferments corrupted, plied by ceaseless rains
Untimely poured, and hot succeeding suns.
Seest thou not, oft, the restless crowds that rove
Far from their homes, their countries, tried severe 1140
With the new stream they drink, the heaven inhale?
From the dread change such sickness sole results.
How wide must BRITAIN differ in her clime
From EGYPT'S tribes, o'er whom the northern pole
Gleams never! orient PONTUS, how, from those 1145
Far westward, scattered o'er the GADIAN isles,
Or the swart ETHIOP, blackening in his blaze!
And since the world's vast quarters, each from each,
As various heavens and atmospheres divide,
So man himself in tincture, face, and form 1150
Alike must vary, and disease sustained.
High up the NILE, mid EGYPT'S central plains,
Springs the dread leprosy, and there alone.
Gout clogs the feet in ATTICA; the sight
Fails in ACHAIA: different regions, thus, 1155
With different organs wage eternal war,
As urged by atmospheres of frame unlike.
But when the heaven, of poisonous power to us,

First moves remote, its hostile effluence creeps
Slow, like a mist or vapour; all around 1160
Transforming as it passes, till, at length,
Reached our own region, it the total scene
Taints, and assimilates, and loads with death.
  Abrupt then falls the new, pestiferous bane,
Broad o'er the fountains, or the food invades 1165
Of man, or beast, the pasture or the grain.
Or, haply, still along the breezy air
It floats commingled; whence, with every breath,
Drink we alike the poison through our veins.
And hence the murrain that assaults, at times, 1170
The lusty herd, the blight that thins our flocks.
Nor aught imports it whether, urged by gain,
We change the covering of the skies, and seek
Ourselves the noxious climate, or its breeze
Meet us spontaneous; or aught else assail 1175
Of nature new, and strange to every sense.
  A plague like this, a tempest big with fate,
Once ravaged ATHENS, and her sad domains;
Unpeopled all her city, and her paths
Swept with destruction. For amid the realms 1180
Begot of EGYPT, many a mighty tract
Of ether traversed, many a flood o'erpast,
At length, here fixed it; o'er the hapless realm
Of CECROPS hovering, and th' astonished race
Dooming by thousands to disease and death. 1185
  The head first flamed with inward heat; the eyes
Reddened with fire suffused; the purple jaws
Sweated with bloody ichor; ulcers foul
Crept o'er the vocal path, obstructing close;
And the prompt tongue, expounder of the mind, 1190
O'erflowed with gore, enfeebled in its post,
Hoarse in its accent, harsh beneath the touch.
  And when the morbid effluence through the throat
Had reached the lungs, and filled the faltering heart,
Then all the powers of life were loosened; forth 1195
Crept the spent breath most fetid from the mouth,
As steams the putrid carcass: every power
Failed through the soul—the body—and alike
Lay they liquescent at the gates of death.

While with these dread, insufferable ills 1200
A restless anguish joined, companion close,
And sighs commixt with groans; and hiccough deep,
And keen convulsive twitchings ceaseless urged,
Day after day, o'er every tortured limb,
The wearied wretch still wearying with assault. 1205
Yet ne'er too hot the system could'st thou mark
Outwards, but rather tepid to the touch:
Tinged still with purple-dye, and brandished o'er
With trails of caustic ulcers, like the blaze
Of erysipelas. But all within 1210
Burned to the bone; the bosom heaved with flames
Fierce as a furnace, nor would once endure
The lightest vest thrown loosely o'er the limbs.
All to the winds, and many to the waves,
Careless, resigned them; in the gelid stream 1215
Plunging their fiery bodies, to be cooled:
While some, wide-gasping, into wells profound
Rushed all abrupt; and such the red-hot thirst
Unquenchable that parched them, amplest showers
Seemed but as dew-drops to th' unsated tongue. 1220
Nor e'er relaxed the sickness; the racked frame
Lay all-exhausted, and, in silence dread,
Appalled, and doubtful, mused the HEALING ART.
For the broad eye-balls, burning with disease,
Rolled in full stare, for ever void of sleep, 1225
And told the pressing danger; nor alone
Told it, for many a kindred symptom thronged.
The mind's pure spirit, all despondent, raved;
The brow severe; the visage fierce and wild;
The ears distracted, filled with ceaseless sounds; 1230
Frequent the breath; or ponderous oft, and rare;
The neck with pearls bedewed of glistening sweat;
Scanty the spittle, thin, of saffron dye,
Salt, with hoarse cough scarce laboured from the throat.
The limbs each trembled; every tendon twitched 1235
Spread o'er the hands; and from the feet extreme
O'er all the frame a gradual coldness crept.
Then, towards the last, the nostrils close collapsed;
The nose acute; eyes hollow; temples scooped;
Frigid the skin, retracted; o'er the mouth 1240

A ghastly grin; the shrivelled forehead tense;
The limbs outstretched, for instant death prepared;
Till with the eighth descending sun, for few
Reached his ninth lustre, life for ever ceased.
And though, at times, th' infected death escaped 1245
From sanious organs, or the lapse profuse
Of black-tinged feces, fate pursued them still.
Hectic and void of strength, consumption pale
Preyed on their vitals; or, with head-ache keen,
Oft from the nostrils tides of blood corrupt 1250
Poured unrestrained, and wasted them to shades.
And, e'en o'er these triumphant, frequent still
Fixed the morbific matter on the limbs,
Or seized the genial organs; and to some
The grave so hideous, they consented life 1255
E'en with th' excision of their sexual powers
Dearly to ransom: some their being bought
By loss of feet or hands; and some escaped
Void of all vision; such their dread of death.
And in oblivion some so deep were drowned 1260
Themselves they knew not, nor their lives elapsed.
And though, unburied, corse o'er corse the streets
Oft thronged promiscuous, still the plumy tribes,
The forest monsters, either far aloof
Kept, the foul stench repulsing, or if once 1265
Dared they the plunder, instant fate pursued.
Nor feathery flocks at noon, nor beasts at night
Their native woods deserted; with the pest
Remote they languished, and full frequent died.
But chief the dog his generous strength resigned, 1270
Tainting the highways, while the ruthless bane
Through every limb his sickening spirit drove.
With eager strife th' enormous grave was snatched,
By friends untended: nor was aught of cure
Discerned specific; for what here recalled 1275
To day's bright regions the vanescent soul,
And gave the living ether to the lips,
Proved poison there, and ten-fold stamped the fate.
But this the direst horror, that when once
Man felt th' infection, as though full forewarned 1280
Of sure destruction, melancholy deep

Preyed o'er his heart, his total courage failed,
Death sole he looked for, and his doom was death.
  Thus seized the dread, unmitigated pest
Man after man, and day succeeding day, 1285
With taint voracious: like the herds they fell
Of bellowing beeves, or flocks of timorous sheep:
On funeral funeral hence for ever piled.
E'en he who fled th' afflicted, urged by love
Of life too fond, and trembling for his fate, 1290
Repented soon severely, and himself
Sunk in his guilty solitude, devoid
Of friends, of succour, hopeless, and forlorn.
While those who nursed them, to the pious task
Roused by their prayers, with piteous moans commixt, 1295
Fell irretrievable: the best, by far,
The worthiest, thus most frequent met their doom.
  From ceaseless sepulchres, where each with each
Vied in the duteous labour, they returned
Faint, sad, and weeping; and from grief alone 1300
Oft to their beds resistless were they driven.
Nor lived the mortal then, who ne'er was tried
With death, with sickness, or severest woe.
  Then the rude herdsman, shepherd, and the man
Of sturdiest strength, who drove the plough afield, 1305
Languished remote; and in their wretched cots
Sunk, the sad victims of disease and want:
O'er breathless sires their breathless offspring lay,
Or sires and mothers o'er the race they bore.
  Nor small the misery through the city oft 1310
That poured from distant hamlets; for in throngs
Full flocked the sickening peasants for relief
From every point diseased; and every space,
And every building crowded; heightening hence
The rage of death, the hillocks of the dead. 1315
  Some, parched with thirst, beneath th' eternal spout
Dropped of the public conduits; in the stream
Wallowing unwearied, and its dulcet draught
Deep-drinking till they bursted. Staggering, some
Threw o'er the highways, and the streets they trod, 1320
Their languid limbs; already half extinct,
Horrid with fetor, stiff with blotches foul,

With rags obscene scarce covered; o'er the bones
Skin only, nought but skin; and drowned alike
Within and outwards, with putrescent grume. 1325
At length the temples of the gods themselves,
Changed into charnels, and their sacred shrines
Thronged with the dead: for superstition now,
The power of altars, half their sway had lost,
Whelmed in the pressure of the present woe. 1330
Nor longer now the costly rites prevailed
Of ancient burial, erst punctilious kept:
For all roved restless, with distracted mind,
From scene to scene; and worn with grief and toil
Gave to their friends th' interment chance allowed. 1335
And direst exigence impelled them oft,
Headlong, to deeds most impious; for the pyres
Funereal seized they, reared not by themselves,
And with loud dirge, and wailing wild, o'er these
Placed their own dead; amid th' unhallowed blaze 1340
With blood contending, rather than resign
The tomb thus gained, or quit th' enkindling corse.

THE END.

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